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ABSTRACT

Striving for an innovative and exemplary approach to preservice and inservice teacher education, Chadron State College, Nebraska, has developed an Outdoor Environmental Education Program. As portrayed in this program description, it consists of: (1) an undergraduate course in outdoor education; (2) a sixth grade outdoor education experience involving students in 11 local school systems; (3) a graduate summer workshop including an extended field trip to Wyoming; (4) field experiences for earth science students studying physiographic provinces and excavating archeological areas; (5) development of state-wide curriculum guidelines; (6) utilization of the state college field laboratory, Camp Norwesca, for outdoor, recreational and science activities; and (7) sponsorship of teacher inservice workshops. Additional material outlines objectives of the program, personnel involved, budget required, evaluation procedures for each component, program impact--how it contributes to the improvement of teacher education, and future plans. Course outlines, class schedules, descriptive brochures, and evaluation reports are appended in the supporting materials section. This work was presented to the American Association of Colleges for Teacher Education for its 1972 Distinguished Achievement Awards Program. (BL)

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OUTDOOR ENVIRONMENTAL EDUCATION

AN INNOVATIVE AND EXEMPLARY APPROACH TO PRE-SERVICE AND IN-SERVICE TEACHER EDUCATION

Chadron State College

Chadron, Nebraska

SE 014 458

ED 067236

OUTDOOR ENVIRONMENTAL EDUCATION

Presented to the

American Association of Colleges

for Teacher Education

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1972 Distinguished Achievement Awards Program

Presented by:

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Chadron, Nebraska

TABLE OF CONTENTS

PREFACE

I. Description and Development of the Program
   A. Description of Chadron State College Outdoor Environmental Education Program
      1. Early Developmental Efforts
      2. Overall Outdoor Environmental Education Offerings
      3. Detailed Description of Outdoor Environmental Education Program
      4. Future Plans for the Outdoor Environmental Education Program

II. Program Objectives
   A. General Goals
   B. General Objectives
   C. Concepts of Outdoor Environmental Education
   D. Examples of Specific Objectives

III. Personnel Involved

IV. Budget

V. Evaluation Procedures

VI. How the program contributes to the improvement of teacher education

VII. Supporting Material

PREFACE

Modern man lives in a rapidly expanding and changing society which grows more and more complex each year. The continual increase in technology, automation, and urbanization, however, have presented man with some very perplexing problems which must be solved: Has man, in his efforts to expand technology begun to destroy our planet's ecology, thus his own existance? If so, what can be done to provide a technology-ecology balance to insure mans' continued existance?

Mans' expanded technology and automation has also provided him with greatly increased amounts of leisure time. Much of this time is being spent in the solitude of the out-of-doors where he can communicate with nature, away from the worries and tensions of everyday living.

Modern man has forgotten, however, how to truly appreciate the natural surrounding of the wilderness. He has become a polluter and destroyer of our ecological process. His presence in the wilderness is easily recognizable by the trail of litter he leaves behind, and the scars he creates through the carelessness of campfires. Man pollutes rivers, streams, and lakes, and destroys the habitat of countless wildlife, which are becoming more and more in danger of extinction.

Therefore, if man and society is to change, educational efforts must focus upon these specific problems. Our nation's educational institutions, both elementary/secondary and college/university, must set priorities, and begin to develop programs which will assist in the continued survival of mankind.

Cecil E. Stanley, Commissioner
Nebraska State Department of Education

I. DESCRIPTION AND DEVELOPMENT OF THE PROGRAM

A. Description of Chadron State College Outdoor Environmental Education Program

1. Early Developmental Efforts

Chadron State College, located in the northwest corner of Nebraska, has been known as the "Pioneering College of Nebraska." Innovation and change in teacher preparation has long been a byword of the college.

Chadron State College's preliminary efforts in their overall Outdoor Environmental Education Project (which will be described in full in this report later) began in the early 1960's, with the establishment of an undergraduate offering in Outdoor Education through the Department of Health, Physical Education and Recreation.

In an effort to make the instruction more meaningful and relevant to the college students, the local school system and parochial school were approached with the idea of involving their sixth grade students in an outdoor education experience.

The college students and classroom teachers worked cooperatively to develop a three-day outdoor education experience for the sixth graders of the Chadron schools. Special emphasis was placed upon not making the experience just a camping or a field trip, but rather to take the entire school curriculum out-of-doors to enrich the learning experiences of both the sixth graders and college students.

The favorable reactions of the sixth graders, their teachers and the college students were overwhelming, and eventually led to one of Chadron

State College's basic beliefs in teacher education.... "Every student should be afforded the opportunity of living and learning in the out-of-doors."

2. Overall Outdoor Environmental Education Offerings

From the early Outdoor Education efforts and the resulting spark of interest displayed by all involved, the Chadron State College Outdoor Environmental Education Project has evolved to a much broader and more interdisciplinary approach. The following describes the present overall offerings which encompass the Chadron State College Outdoor Environmental Education Project.

a. An undergraduate course in outdoor education designed to acquaint prospective teachers with the concepts of outdoor education. Developing an understanding of the history and scope of outdoor education; acceptance of outdoor education as a valuable method of learning, and recognition of the important contributions made to education of youth.

b. Sixth grade outdoor education experience for elementary schools within the Chadron State College region. A function of the undergraduate outdoor education class.

c. Experiences in outdoor education is the graduate course which is intended to provide unique experiences for practicing teachers and prospective teachers, and is based around the need for man to learn new techniques of cooperating with nature. Developing an appreciation of the solitude, naturalness and grandeur under primitive conditions; exploring the vivid displays of geologic, biologic, and

historical remains in areas unaffected by human activity; and involving the participants in healthful and recreational exercises that contribute to a renewal and fulfillment of every human being, in body and in spirit.

d. Fundamentals of Earth Science and Field experiences in earth science is a combined in-service and field training experience. The physical-chemical fundamentals of the earth sciences are taught to in-service teachers for 15 weeks at Valentine, and Ogallala, Nebraska and Rapid City, South Dakota. In the summer students are given the opportunity to become involved in one of three two and one-half week workshops involving one and one-half week field excursions to study major geological features of western United States.

e. State-wide curriculum guidelines (published in cooperation with the Nebraska Department of Education)

f. Camp Norwesca -- Chadron State College Field Laboratory.

g. Teacher in-service workshops, co-sponsored by Nebraska Department of Education.

3. Detailed description of Chadron State College Outdoor Environmental Education Program

a. HPER 436 Outdoor Education

The purpose of this course is to acquaint the students with the values of outdoor education.

To develop a common understanding of the means available for education in and for the out-of-doors.

To develop knowledge and skills through direct experiences for teaching in and for the out-of-doors.

The classroom portion of the HPER 436 class consists of four separate units. The first deals with the development of outdoor education and its relationship to the learning process. The second unit deals with the topic of the role of outdoor environmental education in the schools and colleges. Unit three covers the outdoor environmental education program as a function of the parks, recreational, governmental and voluntary agencies. The last unit covers the leadership preparation and planning for outdoor environmental education.

The portion of the class which involves the one-day excursions and the three-day camps will be explained in detail in the description of sixth grade camps. (a copy of the course outline may be found as supporting material number one).

b. Sixth grade outdoor Education Experience

1. School systems involved:

The sixth grade outdoor education experience has grown from the original two systems, Chadron Public Schools and Assumption Parochial School, to a total of eleven school systems:

Bridgeport, Chadron, Crawford, Rushville, Hay Springs, Harrison, Hemingford, Gering, Sydney, Mitchell. With inquires coming from Wyoming and South Dakota Schools.

The number of students has grown from the original 90 students to over 700 for the 1971-72 camps.

The HPER 436, sponsoring course offering for the sixth grade outdoor education experience, was originally a 3-hour course offered in the spring.

During 1971-72, there is one fall and two spring sections of the course offered.

2. One-day Excursions:

To prepare the sixth-grade students for an extensive three-day outdoor education experience held in the fall or spring of each school year, one-day out-door education activities are cooperatively planned by the college outdoor education class members and the classroom teachers. One-day trips are made to visit points of interest in western Nebraska and southwestern South Dakota. The natural wonders, historical sites, and sanctuaries of the area are visited, and the talents of resource people, on location, are utilized to the fullest.

To facilitate proper supervision of the students, and to most effectively enhance the learning process of the outings, the rules of conduct for the one-day outings are established well in advance by the classroom teachers and members of the outdoor education class.

3. Equipment, Supplies, and Transportation:

All equipment and supplies for use in class work and afterstudy hours are furnished by the participating schools and Chadron State College.

Transportation of the students to and from the outdoor experience area is provided by each school. Some buses remain at the area during the entire three-day program for use by teachers and students on excursions to out-points of interest.

4. Housing:

Housing is provided for by utilizing the housing units at Camp Norwesca. The large, centrally located lodge with cooking facilities,

serves as the dining hall. The building also serves as a classroom in case of inclement weather.

5. Parental Permission, Insurance:

Parental permission is required of all students who participate. An on going public relations program keeps parents informed and up-to-date on the outing plans. To avoid unnecessary congestion and the disruption of meaningful learning experiences, parents are not encouraged to visit the area during the outing.

All teachers and college personnel are covered by their respective school insurance policies, as the outdoor education program is considered to be a part of the regular school routine.

The entire three-day outing is well supervised by the teachers and the college outdoor education class members on the basis of a 24-hour day.

6. Health and Safety Precautions:

Services of a school nurse are available 24 hours a day. (the two Chadron State College nurses alternate.) The nurses, along with the teachers and resource persons, assume the extra burden without special compensation.

7. Daybreak: Start of Program:

The day at camp starts at 6:00, with "reveille," blown by one of the students. Forty minutes are allowed for rising, dressing, washing, and assembling at the dining-hall area. Vigorous exercises before breakfast whet the appetite for a hearty meal.

All students take turns assuming work responsibilities in the dining

hall. Table setting, cleaning up, and chores are shared by all students. Food procurement and preparation is provided by an expert outdoorsman who volunteers his time and services.

8. Study Time:

Typical class activities at camp begin at 8:00 a.m., and include a wide variety of subject-matter areas. Specific content is determined cooperatively by the students and teachers, much depending upon the time and space available. The greatest contribution of the teacher to the outdoor education program is a positive attitude. She is not expected to be an expert on the outdoors, but is expected to participate in all of the activities. She finds that she learns right along with the students. The resource persons and the college students assist in their major areas of interest.

9. Science:

The emphasis in the area of science is to help students place in the proper perspective, the great variety of materials in the outdoors. Efforts are made by the teacher and resource persons to assist the students in understanding the concepts of space, time and change. The vastness of space becomes a reality as students pace off a mile or an acre to solve a problem. Time becomes important as the life cycle of a tree is determined; and an understanding of change evolves as the opportunities to see rocks crumble, soil wash away, and water evaporate are made available.

The interrelationship of living things is explained through the observation of insects, birds, and people. Emphasis is placed upon the

fact that the destruction of some forms of life can adversely affect other living forms.

Resource persons in the areas of biology, earth science, and astronomy avail themselves of the opportunity to present learning opportunities to the students. The open sky at night becomes a laboratory for star study, and each student learns to locate and identify stars, constellations, and galaxies. No longer do they look at the sky and see only stars. Earth science becomes something more than just rocks, as a resource person explains the composition and value attached to those "old rocks".

Ornithology receives attention during study classes and nature hikes. The common birds are identified, and special emphasis is placed upon determining habitats, and such things as "pecking order." General science involves the observation of seasonal changes, and subject matter related to weather.

In the entire area of science study, field identification is emphasized. Most important is the emphasis placed upon understanding relationships, uses, and life histories. Free-discovery exploration is encouraged to challenge all students to find something of significance.

Nature hikes are taken by teachers and students for the purpose of exploring the many life forms found in nature. Lists are kept of all creatures that fly, hop, crawl or run. Special attention is paid to such things as the growth of trees, grass, and different fungi. Rocks are turned over to see what living matter is underneath.

Questions are posed by the teacher as to what was observed, how

many different objects can be named, possible uses of different objects, and notes are made of changes that have taken place.

10. Conservation:

Conservation activities include soil study, prevention of soil erosion planting, and providing wildlife cover. Efforts are made to identify desirable and undesirable practices related to the best use of natural resources. Resource persons from the Forestry Service in the Chadron area have participated wholeheartedly in the program.

11. Social Science:

Although more time is spent on the natural and physical sciences when teaching in the outdoors, the teachers and resource persons utilize the natural environment to explain the "how" of history, geography, and political science. Through exploring old homesites, mine areas, and patterns of settlements, the students are able to visualize and learn how previous generations lived, what work they did, and why they flourished or died out.

A special project has been to reconstruct a western town--selecting and buying homesites; applying for deeds to homesteadlands; electing town officials; solving such problems of early towns as zoning, water, rubbish, disposal, etc. A special plaster-of-Paris model of the local surrounding area is designed and constructed by the students, and social-science study problems are solved "on the spot." To see and explore the area involved helps to make the course of study more meaningful, more relevant.

12. Language Arts:

Seeking a creative outlet has always been akin to the natural world. Classes in art and music attempt to capture the essence of beauty, color, form, and imagery, through interpreting and re-creating some of the mysteries of nature. Slower students are aided as a result of balanced activities. Eye-hand coordination is enhanced through actual work and observation.

Music in camp becomes a memorable experience for all campers. Songs for fun and enjoyment create a feeling of fellowship and friendship. Imitation of the sounds of nature becomes a must for all students.

Storytelling around a campfire becomes a good place for the hesitant student to perform, as all are encouraged to participate. Performing before a group no longer becomes a chore.

13. Physical Education:

Accepting the broader concept, education <u>for</u> the outdoors, involves the teaching of skills that allow for participation by all, not a select few. Relating recreational activities to academic classwork help to vitalize classroom learning. The development of skills, attitudes, and appreciations are necessary for intelligent use of the outdoors.

Recognizing that the time is now for programs of this nature, activities are provided to better educate for living. These activities are usually scheduled in the after-study hours, 4:00 to 10:00 p.m.

(a) Shooting. Classified as an activity for young or old, male or female, physically fit or handicapped, shooting offers a recreational past

time for all ages. Every student is given the opportunity to fire a gun after he has attended sessions on the proper use and safe method of handling firearms, State game laws, and reasons for their enforcement. The Nebraska State Patrol provides authenticity to the program, as do members of the local Rod and Gun Club.

(b) Casting and fishing. Fishing is an activity enjoyed by the young and old, rich and poor, the world over. Skills of fishing are explained to all students, involving the use of the rod and reel. Essential skills of angling are taught by resource persons. As each student learns to cast, he finds that to cast successfuly is fun, a fulfillment of an inherent desire.

(c) Archery. Archery is a fascination for most everyone and has grown to be a top sport in the United States. It is easily taught by a well-trained instructor, and allows students to learn to shoot the proper and safe way.

(d) Boating. A challenge to the student which combines knowledge, skill, and coolheadedness in successfully engaging and utilizing a force of nature, is the skill of rowing a boat. Propelling a boat becomes stimulating in itself, and equips students with skills of wise handling and safety. All students are exposed to the methods of self-rescue and aiding other victims of aquatic accidents.

(e) Orienteering. A map and compass course that offers competiveness among the students to be "the first one home," has proved to be a true

learning experience. Students gain confidence by fending for themselves in the woods. In doing so, they develop a favorable attitude toward outdoor life.

(f) Safety and First-Aid. Safety and first-aid constitute a primary element of the school outdoor education program. Resource persons and members of the college outdoor education class instruct students on the proper methods of prevention and treatment, especially those adapted to the outdoors. (an example of a camp schedule is in supporting material #2)

c. Wilderness Trip

The HPER 537 class is a graduate offering which is also available to undergraduate students who have 90 or more hours of credit. The course is a $2\frac{1}{2}$ week summer workshop which includes seven days spent in the Wind River Mountains of Central Wyoming.

The thesis of the course is that a meaningful outdoor education program for teachers must include experiences in close contact with nature, in a wilderness setting unobstructed by civilization. Learning to live off the land in a survival training course, getting to "feel" nature, and observing the wonders of the outdoors do much to broaden the educational background of would-be teachers utilizing outdoor education concepts.

Instructors for the class are drawn from the areas of astronomy, biology, geology, Indian history, and physical education. Resource

persons include: National Forest Rangers; a representative of the Bureau of Indian Affairs; an Indian Chief; and firefighters.

DESCRIPTION OF COURSE:

The first day and a half consists of "getting ready" activities. Registering for class, meeting with class, meeting with class instructors and resource persons for an overview of the planned activities, and packing and loading equipment and supplies for the seven days of "roughing it" are included.

On the third day the group proceeds to Wyoming and the base camp. Fishing licenses and reservation permit for the seven days in the wilderness are obtained. Tents are staked out, and a steak fry is enjoyed. On the first night in base camp, group sessions on mountain photography and map reading begin the outdoor education instruction.

The morning of the fourth day is spent in preparing for the 13 mile ride into the wilderness. Learning how to bridle and saddle the horse, practice in tying the "diamond hitch," learning to pack equipment in a "panier" on the horse, and getting the feel of riding round out the morning activities.

The afternoon is spent in learning sessions. A forestry representative of the Bureau of Indian Affairs discusses the use of the reservation and related topics; and a tribal Indian chief gives an insight into the customs and living patterns of the Wyoming Indians.

Daybreak of the fifth day marks the departure for the 13-mile ride into the wilderness. Climbing from an altitude of 9,100 feet at base camp, and crossing Windy Pass at 12,000 feet is an unforgettable experience. The

crisp air of the wilderness campsite, altitude 10,300 feet, is sharp and clean. Tents are pitched, the campsite is organized into a living unit.

The seven days in the wilderness are filled with a variety of outdoor learning experiences. Instructors conduct sessions in astronomy, biology, geology, and Indian history. Study in a natural setting is highly motivating as opportunities to see, touch, and appreciate are experienced. Suddenly there is relevancy to all learning. Resource persons reveal new insights and lead discussions in a wide variety of topic areas.

A 48-hour survival course, in which the group learns to "live off of the land," and a session in mountaineering, in which they learn to rappel a mountainside, serve as examples of the many experiences offered.

Leaving the wilderness campsite is both an anticipated and yet saddening event. Left behind are experiences of enjoyment, hardwork, and the closeness of nature. A final powwow at the base camp with the passing of the peace pipe, completes the outdoor experience.

After a day's return trip from the Wyoming wilderness area, the group assembles at the college for a complete evaluation of the program. Experiences are relived, and plans to improve the next workshop are discussed. (A description of the 1969 wilderness trip may be found in Supporting Material #3. A schedule of the 1971 wilderness trip may be found in Supporting Material #4.)

d. Field Experiences in Earth Science

Grand Canyon Trips --

In an attempt to carry the process of earth science education

beyond the laboratory-classroom-local field work environment, Chadron State College initiated in summer 1970 a course entitled "Field Experiences in Earth Science." The course was designed as a senior and graduate student learning experience in which the participants visited selected areas of the Rocky Mountain region, Great Basin, and Plateau Provinces for first-hand observation, analysis and interpretation of these areas.

Objectives of the course were to give senior earth science majors and in-service earth science teachers first-hand experience in observing and interpreting some of the classic geologic exposures and physiographic provinces of the Rocky Mountain region. The field situation allowed the application of classroom concepts, theories and conclusions to actual exposures. An added benefit was that each participant could obtain a series of colored slides of areas for which he had gained first-hand knowledge, allowing for greater interest and learning in classroom discussions.

The itinerary allowed exposure of the students to portions of the following major physiographic provinces of the Western United States:

a. The High Plains

b. The Rocky Mountains and related igneous intrusive masses

c. The Columbia Plateau basal flows and volcanic fields

d. The Great Basin

e. The Colorado Plateau

Areas of specific earth science investigation included the following:

a. igneous intrusives

b. igneous extrusives

c. structural areas

d. erosion, deposition and sedimentary processes

e. glacial features

f. thermal areas

g. paleontology

h. archaeology and anthropology

Implementation of the course called for considerable travel, necessitating camping facilities as room and board. No outside funds were utilized, the venture being supported entirely by a $135 fee added to the tuition for 3 semester hours course credit. The fee covered transportation, board and room, entrance fees to national parks, river trip fee, insurance, etc. A college-owned, 15-passenger airport limousine was utilized for transportation; each participant was limited to one duffle bag plus sleeping bag. College and privately-owned camping equipment was used.

Eligibility requirements for the course were minimal, requiring only that all participants had had "first courses" in geology (i.e. physical and historical geology). Senior and in-service majors in earth science were given first priority and the initial enrollment was limited to 15 persons. (Copies of the 1970 and 1971 schedules may be found in Supporting Material #5.)

Buffalo Jump.

The earth science field has also offered another valuable opportunity for interested students. The students have been voluntarily involved in the excavation of a Scottsbluff Bison Kill site.

The College has had an excavation permit from USDA-FS since August, 1968, under direction of Dr. Agenbroad, to test a bone bed near Crawford, Nebraska. Volunteer student labor allowed test pit excavation over a three-year period. This year, it was decided to excavate on a large scale in an attempt to determine if the site was merely a paleontological occurance or if it was an archaeological site. By noon the first day of excavation, a large Scottsbluff projectile point was found in situ in the rib cage of one of the bison.

The spear point indicates a relative age of 8500-9500 years ago and suggests the bison remains are of the extinct form of bison (Bison antiquis,) National experts were called to the site, gave seminars, advice, etc. An expense grant was obtained from the Chadron State College Research Institute. In addition the College provided one state car for transportation of field crew to and from Chadron.

In all, forty persons were involved, mostly student volunteers, in varying degrees, in excavation, mapping, testing and preservation of the faunal materials. Funds are presently being sought for a proposed five week field session for 15 students.

The site has the potential for being one of the major Paleo-Indian

Archaeological sites in the state of Nebraska, as well as the High Plains Physiographic Province.

e. State-wide Curriculum Guidelines

(1) During the fall of 1969, Mr. Mack Peyton, Associate Professor, HPE, Chadron State College, and Mr. Roy Gray, Administrative Consultant, HPE, Nebraska Department of Education, collaborated to develop a Nebraska Department of Education publication, "Experiences in Outdoor Education". The Guidelines were published in early 1970, and have been distributed to all Nebraska schools and Departments of Education throughout the nation:

(2) The guidelines focussed upon two specific areas:

a. how school systems could develop their own outdoor education programs

b. Elements of a college graduate course in Outdoor Education.

(A copy of the curriculum guide may be found in the Supporting Material #6.)

f. Camp Norwesca--Chadron State College Field Laboratory

In 1970 the Chadron State College Foundation leased Camp Norwesca from the Nebraska United Methodist Churches for utilization by the college for a field campus.

Camp Norwesca is located 12 miles south of Chadron. The camp encompasses 40 acres in the heart of the Pine Ridge. It is bounded on the north by Chadron State Park and on the south and west by the Nebraska

National Forest. Included are a lodge that has kitchen, dining and recreation facilities, a caretakers residence and nine summer cabins with an adult capacity of eight per cabin.

The lease became effective January 1, 1971 and was for fifteen months, after which the agreement will be reviewed. The Methodists have reserved the camp for seven weeks during the summers for their camping programs, when they need the area.

CSC president, Dr. Edwin C. Nelson, in announcing the action to the Board of Trustees of Nebraska State Colleges said, "this will provide a range of opportunities for enriching the curricular and the non-curricular activities of the college and it will allow opportunities for groups from school and communities in the area to appreciate outdoor living and camping experiences. It is our hope that a full schedule of activities will be maintained the year around."

The camp's first major use was for the college's growing outdoor education program which involves college students, faculty, and sixth graders from area schools.

The camp also is used by college organizations for meetings and social activities and is available for rent to non-college organizations.

Several biology courses, particularly those involving nature studies find the camp very useful. The camp provides the college with an excellent laboratory for learning experiences in the outdoors as well as a place for healthful and recreational exercises.

The policies for the use of Camp Norwesca are determined and directed by the Camp Norwesca Committee, established by the Foundation. The Chadron State Foundation was incorporated under the laws of the State of Nebraska on October 10, 1963. It was founded to act as a charitable and educational foundation exclusively for the promotion and support of Chadron State College.

Camp Norwesca is utilized for many of the Chadron State College outdoor education project activities.

a. outdoor laboratory for HPER 436

b. sixth grade Outdoor Education Experiences

c. earth science laboratory

d. teachers in-service workshop area

e. Employment Opportunities Act--to provide employment for four persons in this area of low employment.

g. Teacher In-service Workshops

(1) Sponsored cooperatively by Chadron State College and the Nebraska Department of Education.

a. Annual workshops, held during the spring of each year, in regional areas of the state.

b. at the present time, three teacher in-service workshops have been planned. The first workshop (March 1970) was held at Chadron. Workshop number two (in the final planning stages) will be held in eastern Nebraska. (College credit for teachers offered)

c. Broader involvement of the Curriculum Section, Nebraska Department of Education has evolved. The 1970-71 workshop was a joint effort of Chadron State College and the HPE consultant of the Department of Education. The 1971-72 workshop has included involvement of both the HPE and the Science Consultant. Plans are developing for involvement of the entire Curriculum Section for the 1972-73 workshop. (An example of the agenda for a workshop may be found in Supporting Material #7.)

4. Future Plans for the Chadron State College Outdoor Environmental Education Program.

a. Adhering to their traditional motto as Nebraska's "Pioneering College" and committed to the concept that "Nothing is as permanent as change", Chadron State College continually strives to improve upon their educational programs. Outdoor Education is not an exception to that concept.

b. The successful expansion of the Outdoor Education Experience into the Science area, which has included two summer college courses in the Rocky Mountain area of the United States, and is expanding into more comprehensive studies during 1971-72, and future years, has greatly increased the possibilities for a much broader Outdoor Education Experience in all Chadron State College teacher training areas.

c. Plans are underway to make the current undergraduate and graduate offerings in the physical education and science areas into interdisciplinary offerings for the majority of the teacher training areas.

It is expected that, while the course numbers will remain the same, an appropriate title to correspond to the students major preparation area will be instigated. Eventually these courses will be listed under the Education Division as cross-disciplinary offerings.

e. The increase of staffing for Camp Norwesca, made available through an Unemployment Opportunities Act grant, will provide for greater utilization of the field site as a year-round laboratory.

f. The recent find of a Paleo-Indian bison kill in the Chadron State College area has instigated the development of a field school. The school, proposed to begin in the summer of 1972, will be a field living experience from two and one-half to five weeks in length. The course will be flexible to include archaeology, field geology, paleontology and camp living.

II. PROGRAM OBJECTIVES

A. General Goals of the Chadron State College Outdoor Environmental Education Program

As is the case with the various subject fields included in the total school curriculum, the aims and objectives of an outdoor education program should be clearly stated and understood. Generally, the first guiding principles to be adhered to are:

1. The primary goal of an outdoor environmental education program should be concerned with the total growth of the students, and

2. Experiences in the outdoors should be planned to the end that desirable changes in student behavior will be produced.

B. General Objectives of Outdoor Environmental Education

1. The very basic objective of the CSC Outdoor Environmental Education Project is to attempt to combine all educational disciplines into a cooperative teaching effort to make learning more exciting and relevant to both students and teachers.

2. In recognizing the vast learning potential of a well-planned and well-conducted outdoor education program, the following objectives illustrate the broad range of educational contributions which students can enjoy through participation in such a program:

a. to reinforce the principles of natural science, conservation, social sciences, language arts, and physical education.

b. to reinforce citizenship through allowing students to live and share together, accept responsibilities, and learn through group planning.

c. to reinforce the worthy use of leisure time through outdoor experiences of health and physical education.

d. to reinforce an appreciation of all living things in the outdoors;

e. to provide a friendly and informal atmosphere of learning through fellowship and "fun experiences."

C. Concepts of Outdoor Environmental Education

1. The plan of action of an outdoor education program infringes upon traditional class scheduling practices. The amounts of time involved cannot be equated to certain required number of minutes or credits; nor is the ordinary school routine followed. Gone is the rigid formality, bells do not ring, and the outdoor activities are tailored to the needs and interests of the students. The entire outdoor education program is based on the following education concepts:

a. providing directed learning through planning, executing, and evaluating activities within the program;

b. motivating learning by appealing to the interests of the students;

c. providing for individual differences by allowing each student to express initiative, show ability, and achieve some degree of status;

d. providing a wide range of satisfying experiences for uniting all in the practice of democracy;

e. utilizing nearby facilities.

D. Examples of Specific Objectives

1. The overall CSC outdoor environmental education program involves several phases (as listed in Part I, Section 2, a-2). The following specific

objectives, therefore, have been randomly selected from several of the individual phases. Measurement of student programs is undertaken only after students have been exposed to: instruction, both formal and informal, via lectures, discussions, observations, actual practice and/or field experience.

(a) Sixth Grade Outdoor Education Project

(1) Given ten examples of plant life found in the area, the student shall correctly identify 8 of the 10 plants.

(2) The student shall be able to discuss at least three historical facts relating to the Indian culture of the area.

(3) Given a paper sack with the proper metal holder, two strips of bacon and one egg, the student shall be able to successfully cook his breakfast over an open campfire without burning the sack.

(4) The student shall be able to correctly identify the calls of at least two birds found in the area.

(b) Experiences in Outdoor Education

(1) The student shall be able to correctly demonstrate the packing of a pannier, tying it down with both a single and double diamond hitch.

(2) The student shall be able to identify and discuss at least two geologic formations of the area.

(3) The student shall display his ability to survive for two days in the wilderness by constructing a livable lean-to, building a fireplace, finding and preparing edible plant life, and catching and preparing fish over an open campfire.

(4) The student shall be able to correctly identify at least seven different shrubs and/or trees found in the area

(5) Equipped with a topographical map and compass, and given a magnetic heading and map location, the student shall be able to demonstrate his ability to correct for true north, and hike to the proper location.

(c) Field Experiences in Earth Science

(1) The student shall be able to correctly describe the main geologic formations of at least three of the five areas visited during the class.

(2) The student shall be able to distinguish between igneous intrusives and igneous extrusives.

(3) The student shall be able to distinguish the similarities and/or differences between the construction of the ancient indian dwellings of Walnut Canyon, Aztec Ruins, and Mesa Verde.

(d) Teacher In-service Workshops

(1) The teacher shall be able to identify the necessary organizational steps for implementing a school based outdoor education experience, by listing: financing, equipment and supplies, transportation, parental permission, insurance, housing and safety precautions.

(2) The teacher shall display the ability to develop instuctional objectives for the outdoor education experience which correlate with both lead-up and follow-up activities in the classroom.

III. PERSONNEL INVOLVED

A. Sixth Grade Camp

1. Mr. Mack Peyton, Director and Co-Ordinator
2. Students from the HPER 437 undergraduate Outdoor Education Class
3. The sixth grade classroom teachers from the participating schools
4. Mrs. Mable Poppe and Mrs. Hermine Loghry (College Nurses)
5. Resource People

(i.e.) Sgt. Manning, Nebraska State Patrol - gun safety

Mr. Hollie Martin, Mar Bow Archery Company - archery

Mr. Frank Thoendal - lapidary

Forest Service Personnel on Conservation, Timber, Soil, Water, Wildlife, Western Life - Fairing and Branding

6. Mr. Don Berlie - Food preparation and supervision

B. Camp Norwesca

1. Resident Director - Mr. Gilbertson
2. Camp Norwesca Committee*

Mr. Peyton	Miss Gates
Dr. Bentley	Mr. Duncan
Mr. Armstrong	Dr. Holmberg
Mr. Tibbits	Dr. Tangeman

* The Camp Norwesca Committee is a committee which administers the camp for the Chadron State College foundation who leases the camp from the Methodist Church.

C. Outdoor Education-In-Service Workshop

1. Mr. Mack Peyton
2. Mr. Roy Gray
3. 19 Different resource people to provide the experiences

D. Experiences in Outdoor Education - HPER 537

1. Mr. Mack Peyton, Director
2. Mr. Jack Romanek, Co-Director
3. Resource Personnel

Earth Science - Dr. Larry Agenbroad, Mrs. Mary Peyton

Biological Science - Miss Doris Gates

Food Preparation and Ecology - Mr. Don Berlie

Indian and Mountain Men History - Mr. Jim Hanson

Music - Mr. Norm Martin

Safety and First Aid - Registered Nurse

E. Earth Science Field Trips

1. Dr. Larry Agenbroad

IV. BUDGET

A. The Outdoor Environmental Education Program at Chadron State College does not receive any special budgeting. Most of the expenses for the various programs are met by participant fees. The instruction is part of the college faculty members regular load and the many involved resource people donate their time and efforts.

1. Sixth Grade Camp

   a. Camp Costs

      Camping Charge (paid by school systems) $1.00/day/student

      Meal Expense and Camp Insurance (built up by student savings) $6.50/camp/student

   b. Faculty

      Instructional staff costs were not included in a special budget for the project as the duties assigned were part of their regular load.

2. Camp Norwesca

   Director - The camp director receives free housing and free utilities to supervise the camp.

   Upkeep - There are no budgeted funds for this, maintenance comes from the Chadron State Foundation which realizes the income from the groups and activies which are held at the camp.

3. Outdoor Education-In-Service Workshop

   a. Registration Fee - Covered Facility and Material expenses

   b. Personnel - all voluntary

4. Wilderness Trip

a. Trip Expenses

Each student paid $75.00 to defray the cost of guides, wranglers, packers, camping permit, food and transportation.

b. Personnel

Director and co-director were not budgeted separately as this was considered part of their load. Resource personnel were not paid but, student camping fees were used to defray the personnels' trip expenses.

5. Earth Science Field Trips

a. Trip Expenses

Each student paid a fee of $175.00 for the 1970 trip and $335.00 for the 1971 trip to defray the cost of transportation, lodging, food, and tuition.

b. Faculty

No special budget was established for the instruction as this was considered as part of his load.

V. EVALUATION PROCEDURES

A. Overview of Evaluation Methodology

1. To better facilitate a more comprehensive evaluation of the overall Outdoor Environmental Education Program, Chadron State College has utilized the following evaluative methodology.

a. On-the-site observation by State Department of Education Personnel of the following program phases:

1. sixth grade outdoor education experiences
2. teacher in-service workshop
3. HPE 537--Experiences in Outdoor Education

b. Tabulation of surveys, both written and personal interview, including follow-up studies of sixth grade program conducted at two and four-year intervals.

B. Description of Evaluative Methodology

1. On-the-site observations by State Department of Education Personnel

a. Sixth grade outdoor education experience

1. on-the-site observations by State Department of Education personnel have been made upon four occasions

a. Chadron Public Schools underwent a state and North Central school evaluation in the spring of 1969. Several members of the evaluation team spent one day visiting the outdoor education experience. References to the program operation were included in the reports of the general elementary evaluation team as well

as the subject-matter specialists.

b. three on-the-site visitations have been made by the State Department of Education Consultant for Physical Education and Health; 1969, 1970, and 1971.

c. regular visits by college and public school administrators.

b. Teacher in-service workshops.

1. The 1970 teacher in-service workshop, which is the first in a series of three regional workshops, was observed by the State Department of Education Consultant for Physical Education and Health.

2. Observation and participation of additional curriculum specialists from the State Department of Education is planned for the 1971 and 1972 workshops.

c. HPER 537--Experiences in Outdoor Education.

1. The 1971 two-week summer course received on-the-site observation and evaluation by a evaluation team composed of the Chairman of Health, Physical Education and Recreation, Chadron State College, and the State Department of Education Consultant for Physical Education and Health.

2. A written report of the evaluation teams observations and personal interviews with class members was presented to the college administration in September of 1971. (A copy of this report may be found in Supporting Material #8.)

2. Tabulation of Surveys

a. Sixth Grade Program

1. Subjective and objective evaluation techniques were utilized at the completion of each of the separate sectionsof the Chadron State College Outdoor Environmental Education program.

At the conclusion of the camp the students and the teachers were asked to express their reactions to the camp and each time very positive responses were given.

During the camps, periodic administrative visits were performed and each time the students and teachers were involved in an enthusiastic learning experience.

2. A follow-up study (a 76 question questionnaire) was given to the 63 Chadron Students still in Chadron who had participated in the initial camp of 1967. "Aug. 1971 was the date of the study."

In response to the question "What do you remember as the most enjoyable experience in camp?" Forty-two percent responded it was in the out-of-doors, eighteen percent responded that they recalled it as being fun and nine percent recalled nothing and the remaining four percent had a variety of responses.

When they were asked, "Did the camp cause you to like or dislike school a little more?", sixty-nine percent responded that they liked it more, nine percent that they disliked school more and twenty-two percent didn't remember.

In response to a similar question, "Was your attitude toward school changed any because of your attendance at the sixth grade camp?" Thirty-eight percent said "Yes", forty-eight percent said "No", and fourteen percent said they "didn't remember".

In response to the question "Would you have liked to have had another school camp, or a longer period of camping?" ninety-seven percent of the students responded "Yes", one student said "No" and one student "didn't remember."

b. Wilderness Trip

At the conclusion of each trip, each of the participants in HPER 537, Experience in Outdoor Education course, was asked to fill out an evaluation sheet after returning from the trip. They, probably more than anything else, proved the worth of the course.

One student, when asked if he felt the objectives of the course were fulfilled, wrote: "I think the objectives were fulfilled. Where else could you have a workshop so full of the real, natural specimens to work with?"

Another, when asked to state the course's weak points, said: "I sincerely feel that there were no weak points at all. The program should continue to be built along the schedule as it was this time."

Most of those involved said they felt one of the most important things they learned was how to enjoy the outdoors. Several also mentioned that their abilities to work with others were strengthened, and that they learned that interdependence among their fellow men was extremely important.

One student wrote that the most important thing he learned was "How to live in the wilderness and have fun and learn at the same time." Another said he discovered "What peace and quiet really is."

When asked, "Would you go again?" the following comments were received:

"Yes. There are still hills to climb, flowers to identify, wildlife to see and hear, rocks to collect and fish to catch and eat."

"Yes, for so many reasons. It was one of the best educational experiences of a lifetime, and will be remembered for a long, long time."

"Yes, I don't believe a person can learn everything in a week and I think men should be jolted back into reality every so often. It was the most rewarding experience that I had during my graduate work. Thanks."

c. Grand Canyon Field trips

At the conclusion of the earth science field experiences the student responses were enthusiastic. They felt they had shared an experience they could have gained in no other way. Many professed a deeper understanding of "Classroom" geology by having been put on the spot, at the spot, and having been asked to interpret what they observed--either as a class or as individuals. They felt that the discussions which took place on the bus during travel gave new insight and wider appreciation and understanding of the areas visited. They also gave a chance for each person to contribute from his or her personal background and area of interest.

Participant reaction was unanimously in favor of the experience. Instructor reaction was the same. The participating students felt that this course was a

rewarding, informative challenging method of making geology "real" and allowing a student to use the background he has obtained to interpret what he is observing--in most cases for the first time.

VI. HOW THE PROGRAM CONTRIBUTES TO THE IMPROVEMENT OF TEACHER EDUCATION

A. Overview

1. The Chadron State College Outdoor Education Project operates under two very basic educational concepts.

a. Learning takes place more efficiently and effectively if the subject matter content is made more relevant to the student. Relevancy is easily facilitated in outdoor experiences where students are afforded opportunities to "see, touch, smell and hear."

b. A humanistic teaching approach which allows for a positive student self-concept facilitates learning. The more informal teaching techniques dictated by the outdoors contribute to this humanistic approach.

B. Specific Contributions to Teacher Education

1. Provides students and practicing teachers with opportunities to discover how to use the out-of-doors as a learning laboratory.

2. Allows students and practicing teachers to experience a cooperative and interdisciplinary teaching approach.

3. Offers students and practicing teachers opportunities to discover and capitalize on the "magic teaching moments" which are facilitated through outdoor teaching.

4. The informal teaching techniques utilized in outdoor teaching offers

students and practicing teachers opportunities to develop more humanistic teaching techniques. The closeness and informality of the outdoor experience brings the students and teacher in much closer contact, allowing both a greater understanding of each other. People really get to know each other.

5. The sixth grade program offers prospective teachers with pre-student teaching experiences involving children, giving them a greater understanding of the product (children) with which they will be working.

6. The sixth grade program offers prospective teachers the opportunity to work closely with an experienced teacher in planning and preparing educational experiences for children.

7. The graduate classes (HPE and E.S.) involve a concentrated field experience where students live in close contact 24 hours per day. This close personal contact, where all must share, provides countless opportunities for the students to reevaluate their personal value systems, and their attitudes understandings, and compassions for others. The opportunities for sharing ideas help to develop better teaching techniques.

8. The variety of experiences made possible by the flexibility of instruction in the out-of-doors makes each day an enjoyable experience for both teacher and student. The opportunity to have the days schedule interspersed with lecture and discussion periods, excursions into the field for on-site study, and small group discussions has made each student feel like they are contributing to the education of their fellow student. The changing

daily schedule has proven to students that unequal subjects do not need equal time each day.

VII. SUPPORTING MATERIAL

1. HPER 436 Outdoor Education Course Outline
2. Sixth Grade Outdoor Education Class Schedule
3. HPER 537 Experiences in Outdoor Education 1969 Wilderness Trip Description
4. HPER 537 Experiences in Outdoor Education 1971 Workshop Schedule
5. Field Experiences in Earth Science Itineraries
6. Curriculum Guide for Outdoor Education
7. Outdoor Education Workshop Agenda
8. HPER 537 Experiences in Outdoor Education Evaluation Report

Supporting Material #1

HPER 436 OUTDOOR EDUCATION

COURSE OUTLINE

REQUIREMENTS: Research assignment on School Camping

Practicums:

1. 1 day field trip with 6-7-8 grade students
2. 3 days School Camping with 6th grade students and teachers

Three examinations

Active participation in all outdoor projects

CLASSROOM PORTION OF COURSE

Unit I. The Development of Outdoor Education

A. Social operation within the American culture

1. Our changing society

B. The development of outdoor education in the American educational system.

1. Historical development
2. Modern day concern for education
3. Major influences in curriculum change affecting outdoor education
4. What is outdoor education?
   a. Education IN the outdoors
   b. Education FOR the outdoors

5. Outdoor education and interrelationships of terms

6. School objectives for outdoor education

7. Implications of outdoor education for the curriculum

8. Outdoor education and the goals of education

9. The school-Community setting for outdoor education

C. Outdoor education and the learning process

1. The nature of learning

2. Characteristics of human growth and learning

3. Outdoor education for curriculum enrichment

Unit II. Outdoor Education in Schools and Colleges

A. Education in the outdoors

1. Exploration - field trips

a. intensive studies

b. extensive studies

2. Special projects

3. School and community for outdoor education

4. Outdoor education through subject matter area and activities

B. Outdoor education in camp settings

1. The nature of outdoor schools

2. Organization-administration of programs in camp setting

3. Enriched living through outdoor experiences

4. Program activities in camp settings

C. Education for the outdoors

1. Casting-angling
2. Shooting-hunting
3. Archery
4. Aquatic activities (safety)
5. Winter Activities
6. Mountaineering
7. Orienteering
8. Family camping
9. Native crafts
10. Outdoor education and survival
11. The modern outdoors man
12. The leading-on experiences and qualities
13. Special interest clubs
14. Adult education for outdoor living

Unit III. Outdoor Education through Park and Recreation Agencies

A. Outdoor education through Park and Recreation agencies

B. State and Federal relationships to outdoor education

1. State services
2. Federal Services
3. Federal agencies and outdoor education

C. Outdoor education through voluntary, private and professional agencies

1. The voluntary youth-serving agencies

2. Organized camping

3. National conservation

4. Outdoor recreation organization

Unit IV. Leadership Preparation and Planning for Outdoor Education

A. The problem in leadership preparation

B. Interdisciplinary approach

C. Plans for action

1. Initiating a school program

2. Community improvement

3. Community campus

4. Pilot program

D. A view of outdoor education for the future

1. The climate for outdoor education

2. Educational developments affecting outdoor education

3. Action-research design for outdoor recreation

a. Nature of research plan

b. Values of forest recreation

c. Objectives of the plan

d. The plan in action

4. Outdoor education and the curriculum

5. What of the future?

6. Tomorrow's outdoorman

Supporting Material #2

SIXTH GRADE OUTDOOR EDUCATION EXPERIENCE

TENTATIVE CLASS SCHEDULE

Wednesday P. M.

2:00 P. M. - Hike to Watershed (entire group) - Miss Gates.

3:00 P. M. - Group 1 - Soil profile

Group 2 - Awareness of Beauty & Tree Census

Group 3 - Sketch a Scene

Thursday A. M.

8:30 A. M. - Group 1 - Awareness of Beauty & Tree Census

Group 2 - Sketch a Scene

Group 3 - Soil Profile

9:30 A. M. - Group 1 - Sketch a Scene

Group 2 - Soil Profile

Group 3 - Awareness of Beauty & Tree Census

10:30 A. M. - Relaxation - Work on anything unfinished

11:00 A. M. - History, Nelson, Ft. Robinson

Thursday P. M.

1:00 P. M. - Group 1 - Orienteering & Fire Building

Group 2 - Pond Community Study

Group 3 - Survival Shelter & Relaxation

2:00 P. M. - Group 1 - Survival Shelter & Relaxation

Group 2 - Orienteering & Fire Building

Group 3 - Pond Community Study

3:00 P. M. - History of Surrounding Area - Mr. Berlie

4:00 P. M. - Group 1 - Pond Community Study

Group 2 - Survival Shelter & Relaxation

Group 3 - Orienteering & Fire Building

Friday A. M.

8:30 A. M. - Hike to Job Corps (entire group)

Friday P. M.

1:00 P. M. - Smokey the Bear (entire group)

Group Instructors - Dixie Ametesis & Rex Brown
Any available help.

OUTDOOR EDUCATION CAMP, AFTER SCHOOL ACTIVITIES SCHEDULE

Wednesday

4:00 P. M. - 4:45 P. M. - Fishing & Boating instruction

4:45 P. M. - 5:00 P. M. - Flag lowering

5:00 P. M. - 6:00 P. M. - Supper & clean up

6:00 P. M. - 7:30 P. M. - Miss Turnell - knot tying

7:30 P. M. - 9:30 P. M. - Astronomy

9:30 P. M. - 10:00 P. M. - Vespers (voluntary) others sing along.

10:00 P. M. - Snacks and to bed

Thursday

6:30 A. M. - 7:15 A. M. - Arise, Cleanup and brief wake up exercises

7:15 A. M. - 7:30 A. M. - Flag raising

7:30 A. M. - 8:30 A. M. - Breakfast & clean up

4:00 P. M. - 4:45 P. M. - Rifle instruction

4:45 P. M. - 5:00 P. M. - Flag lowering

5:00 P. M. - 6:00 P. M. - Supper & clean up

6:00 P. M. - 8:30 P. M. - Square dancing with Mr. Martin & Tennacling

8:30 P. M. - 9:30 P. M. - Astronomy with Mr. Smith

9:30 P. M. - 10:00 P. M. - Vespers (voluntary) others sing along

10:00 P. M. - Snacks and to bed

Friday

6:30 A. M. - 7:15 A. M. - Arise, Clean up and brief wake up exercises

7:15 A. M. - 7:30 A. M. - Flag raising

7:30 A. M. - 8:30 A. M. - Breakfast

Supporting Material #3

EXPERIENCES IN OUTDOOR EDUCATION

13 Mile Pack Trip in the Wilderness Area of
The Wind River Mountains

EXPERIENCES IN OUTDOOR EDUCATION

13 Mile Pack Trip in the Wilderness Area of The Wind River Mountains

sponsored by
Division of Health,
Physical Education and Recreation
CHADRON STATE COLLEGE

EXPERIENCES IN OUTDOOR EDUCATION

HPER 537

A
Workshop
in the
Wilderness Area of
The Wind River Mountains
Western Wyoming

13-Mile Pack Trip
on the
Ft. Washakie Indian Reservation

Sponsored By

Division of Health,
Physical Education and Recreation

Prepared By
Con Marshall
Information Director

CHADRON STATE COLLEGE
Chadron, Nebraska
1970

EXPERIENCES IN OUTDOOR EDUCATION

The wilderness of Wyoming became a Chadron State College classroom during the summer of 1969.

Twenty-nine members of the Health and Physical Education 537, "Experiences in Outdoor Education," class spent 10 days living and learning in the Great Outdoors in the pilot program that seems destined to grow because of the unqualified success of the 1969 experience.

Four instructors from Chadron State College plus six additional resource personnel accompanied the group.

The site of this innovative adventure was the Shoshoni Indian Reservation in the Wind River Mountains about 35 miles south of Fort Washakie, Wyoming. In this picturesque, unmolested setting the members of the class were given instruction in the areas of biology, earth science, astronomy and Indian history while living in man's most natural habitat

the outdoors.

The idea for the course was conceived by Mr. Mack Peyton, associate professor of Health, Physical Education and Recreation at CSC. Mr. Peyton, who doubles as the school's basketball and baseball coach, is an outdoor buff and believes the outdoors is a "great big laboratory." He feels that every subject can be taught and taught well in the outdoors.

"The four walls of a classroom often become a boring familiarity to the students," Mr. Peyton stated. "But the outdoors offers a fresh adventure to many. People become curious when in the outdoors and learning becomes easy and natural."

Equally important during the excursion was the "learning to live" in the outdoors where the nearest grocery store was 35 miles away and where man had to "rough it," so to speak, in an era where living usually comes easy to most Midwesterners. All of the participants in the class slept in bedrolls placed on the ground and ate meals that were cooked

over an open fire. To many, this was the most thrilling portion of the 10-day session.

BACKGROUND

Outdoor Education has become a vital and exciting addition to the curriculum at Chadron State College during the past few years. Aside from the H&PE 537 course, the college also offers H&PE 436, entitled "Outdoor Education."

The latter was initially offered in 1967 and was designed to challenge the elementary and secondary teacher to put into practical use all the knowledge gained in the classroom. The major and culminating activity was the school camping program for sixth grade students from schools in Western Nebraska. It also was offered in 1968 and 1969.

The sixth graders spend three days at Chadron State Park where they are under the supervision of enrollees of H&PE 436 and their regular teachers. The college students demonstrate the depth and vitality of education in the outdoors by teaching activities they have learned earlier in the semester.

The college students and sixth grade teachers plan all activities cooperatively, go to camp together and thus relate outdoor learning to the purposes and objectives of the local schools. Importance is attached to teaching through observation and direct experiences to give clearer ideas, greater knowledge and more natural experience in oral expression. The same is true in H&PE 537.

Having worked closely with H&PE 436, Mr. Peyton felt it could be expanded into a broader program for graduate students. He approached the head of his division, Mr. Ross Armstrong, about the possibilities. Mr.

Armstrong, in turn, presented the idea to the academic affairs committee, which accepted it readily.

After gaining the college's approval, Mr. Peyton began looking for his "classroom." Since he had taught and coached in Wyoming prior to coming to Chadron State, he was familiar with the Cowboy State's vast amount of virgin space and began setting up the program with this in mind.

COURSE OBJECTIVES

The description of the course which Mr. Peyton drew up is as follows:

"To provide unique experiences for prospective teachers that cite the need for man to learn new techniques of cooperating with nature. Developing an appreciation of the solitude, naturalness and grandeur of the wilderness by self-reliant living and traveling in wild areas under primitive conditions; exploring the vivid displays of geologic, biologic and historical remains in the areas unaffected by human activity; and involving the participants in healthful and recreational exercises that contribute to a renewal and fulfillment of every human being in body and in spirit."

The seven objectives of the course were:

1. To encompass the use of the outdoors as a laboratory to supplement classroom learning.

2. To develop an attitude for better utilization of natural resources by prospective teachers.

3. To familiarize and impress all prospective teachers with the dependence which they have on all natural resources.

4. To provide many lively contacts with realities of life through extramural living and thinking in the wilderness area.

5. To provide the outdoor experiences that develop curiosity and wonder among the things not identified nor understood.

6. To adventure into the outdoors where seeing will vitalize the learning process and the doing will make the learning more meaningful.

7. To provide challenge to find satisfactory solutions to perplexing problems in personality development, character training, social adjustments and inter-cultural education.

RESOURCE PERSONNEL INVOLVED

Assisting Mr. Peyton in the directing of the experience was Mr. Jack Romanek, a graduate of Chadron State College and now Campus Center director at Casper College, Casper, Wyoming.

Aside from Mr. Peyton, other staff members from Chadron who participated were Mr. James McCafferty, assistant professor of chemistry; Miss Doris Gates, assistant professor of biological sciences; Dr. Larry Agenbroad, associate professor of science; and Mr. Don Berlie, assistant director of educational television who filmed the expedition and also was in charge of the procurement and preparation of the food.

Additional lectures and demonstrations were given by the following:

Mr. Clyde Dollar, Indian historian, Rosebud Reservation, Rosebud, S. D., (Indian history).

Mr. Hiram B. Smith, district ranger, Shoshoni National Forest, Lander, Wyo., (Forestry and rules of the wilderness).

Mr. Edward LeClair, registered outfitter, Fort Washakie, Wyo., (Owner of horses used to make 13-mile trip from base camp to camp site. He also demonstrated the tying of the packs on the horses and the handling of the horses).

Mr. Dick Kingsolver, acting chairman, Vocational-Technical Division, Casper College. (Fly-casting).

Mr. Bill Chambers, auto mechanic professor, Casper College, (Mountaineering).

Mr. Clyde W. Hobbs, representative, Bureau of Indian Affairs, Department of Interior, Fort Washakie, Wyo. (Rules of the reservation).

The three Chadron State professors, Mr. McCafferty, Miss Gates and Dr. Agenbroad, as well as Mr. Dollar, each spent the entire 10-days at the camp. Each had three formal sessions along with dozens of informal sessions. "The unplanned times were just as important as the planned times," Mr. Peyton noted.

As the group hiked, went on fishing trips and roamed about the area, the professors pointed out certain plants, birds and animals, formations and features that pertained to their area. At night the group often gathered around Mr. McCafferty to learn more about the heavens.

The other resource personnel presented their data at either the base camp or the camp site.

SITE OF THE ADVENTURE

The spot selected for the excursion was in the Wind River Mountains. Base camp was established at Mr. LeClair's headquarters about 22 miles south of the town of Fort Washakie, From there the members of the class rode 13 miles on horseback to the camp site, which was established on the shore of Raft Lake.

Between the base and the spot where the camp was established, the participants rode through some of the most beautiful and rugged terrain in America. At times the winding trail to the camp went above timberline

and almost touched the clouds. It also crossed creeks, went down steep inclines and beneath towering evergreens.

Rugged, snow-capped mountains provided a panoramic backdrop to Raft Lake, which is situated about 9,300 feet above sea level. Its chilly 40 to 50 degree water was found unsuitable for swimming but provided plenty of mouth-watering trout, as did several surrounding lakes that members of the party tested.

The ages of the members of the class ranged from 21 to 62, and 12 of them had never ridden a horse before. However, the entire period went without a hitch or injury. All participated in each activity. Eleven women were included in the group.

THE SCHEDULE

After weeks of preparation, "Experiences in Outdoor Education" began on the Chadron State College campus on July 23 with registration. On the following day, an orientation session was held in which the course was outlined, materials were distributed, equipment was packed and loaded, food was purchased and packed and a briefing on what was expected of everyone was held.

The party embarked from Chadron to Fort Washakie at 7 a.m. on the 25th. They arrived at the Fort Washakie base camp late that afternoon and that night tasted their first outdoors-cooked meal.

July 26th was spent with some of the resources personnel, including Mr. Ed LeClair, who demonstrated the packing of equipment and handling of the horses. The participants were encouraged to get acquainted with their horses before the long ride to the camp.

Breakfast on the 27th was served at 5 a.m. with the trip to the camp beginning at 6 a.m. The ride took about six hours. The remainder of the day was spent relaxing and being oriented to the area by Mr. LeClair and his helpers.

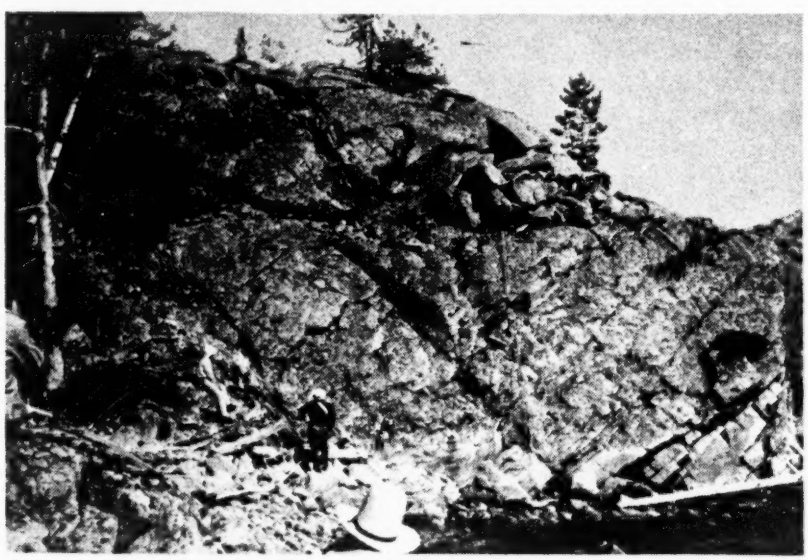
Mountaineering, hiking, studying the topography and biological pursuits led by Miss Gates occupied most of the 28th. Mr. McCafferty also led his first star study that night.

The techniques of fly casting, fishing and photography were taught the morning of the 29th. That afternoon sessions in bird watching, rock hunting, and general exploration of the area were held.

On the 30th, Dr. Agenbroad led discussions on geology and earth sciences. A fishing contest was held in the afternoon.

The 31st was devoted mainly to some biological studies and assignments given by Miss Gates while that evening included another course in astronomy.

Dr. Agenbroad led another geology session on August 1st and some technical aspects of mountain climbing and the wilderness were discussed and demonstrated. Supper that night tasted especially good as it marked the end of a two-day survival period in which only those things which could be secured in the camp area were eaten.



On August 2nd, the trip back to the base camp was made and on the following day the party arrived back at Chadron.

FOOD PROCUREMENT AND PREPARATION

A total of 1,190 individual meals were served to the course participants and resource people during the outing. This emphasizes the

importance of well-planned meals and preparations prior to making the trip.

The man in charge of the food, Mr. Berlie, made up the menus and grocery list long before July 25th rolled around. His list included 20 pounds of hamburger, 20 pounds of bacon, 5 pounds of coffee, 24 cans of soup, 50 pounds of flour, 10 pounds of sugar, 30 pounds of canned meat, 10 pounds of powdered eggs, and 50 pounds of potatoes, plus hundreds of pounds of other canned goods, dried foods, seasoning, etc.

For his basic equipment, Chef Berlie made two large gridles that were 18 inches by 18 inches and two inches deep of heavy aluminum. Besides being used to fry items, they could be converted into an oven for baking purposes.

All perishable food had to be used by July 28th, the evening of when there were still five days of camping left. From this time on, the group prepared its own pastries such as blueberry pancakes, biscuits, sourdough breads, bannick bread made of flour, water, salt and baking powder, and pies.

The grease from the bacon and ham was used for shortening. Other improvisations also were necessary. In making the pie crusts, a piece of foil was placed on a hewn log, which had also served as a table, and the vinegar bottle was used to roll out the dough.

For the fireplace, a ring of large stones were placed in about a two foot diameter. Prior to cooking a large fire would be built with some sticks three to six inches in diameter. The fire would be allowed to die with the coals retained for the heat. Small pine branches were added to the coals if more heat was needed.

Supplementing the supply of food that was brought to the wilderness camp were many fish that the anglers caught. The fish provided a bulk of the diet for the survival meals. Some juniper berry tea was also made during the survival period, and some tried cooking a water lily root that was obtained by diving into some extremely cold mountain water. They had heard that the Indians used to use it, but it proved too bitter for white man. As far as is known, no one swallowed a single bite. Some beef jerky and candy bars also were passed out to supplement the fish during survival.

EDUCATIONAL EXPERIENCES

Outdoor education opens the door of the classroom and provides a vital necessity to a child's physical, mental, social and spiritual development. During most of man's existence he has been close to the things of nature, and has been guided by the rules of the outdoors, Mr. Peyton notes.

However, Mr. Peyton points out that urbanization is slowly depriving many of this contact, and the so-called "knowledge explosion" has substituted abstractions, words and symbols for real life experiences. Children are finding it difficult to understand the inter-relationships of man, the material world and the aesthetic and spiritual values to living, he adds. Automation has helped remove the necessity of physical exercise, robbing people of some of life's most treasured moments.

With more and more free time creeping into our society all the time, there is more time for recreation and outdoors experiences. But if we don't know how to use these experiences, the extra time will be of little advantage, the veteran sportsman said.

Besides teaching how to live and play, the outdoors provided a vast amount of natural resource material. The participants in the course were exposed to the methods of identification of rock formations and geological structures, glacial features and some of the economic aspects of the geology of the area. Other things such as stone tool manufacture were explained and demonstrated in an area where it was actually occuring not more than 100 years ago.

The wilderness also provided a biological laboratory unique to most of those on the trip. Several types of plants, small animals and birds that are natural only to this high-altitude habitat were observed. By living among these articles, the class members seemed to take a fresh interest in them. A flower was looked upon for more than its beauty, after it was learned that a flower has to be a special breed to live in the wilderness. The same was true of the other plants, particularly the trees, and the animals that were seen.

Of course, the openness of the wilderness offered an unusual chance to bring about an awareness of the heavens. This opportunity was used to its fullest as the students learned to locate and identify many stars and constellations. The Graphic Time Table was used to predict the rising and the setting of the planets in our solar system. The students also were taught how to tell time through the use of the sun.

Such experiences generate interest and enthusiasm spontaneously. This, in return, heightens the experiences of the trip and, presumably, all future

travels of each participant.

STUDENT COMMENTS

Each of the participants in the course was asked to fill out an evaluation sheet after returning from the trip. They, probably more than anything else, proved the worth of the course.

One student, when asked if he felt the objectives of the course were fulfilled, wrote: "I think the objectives were fulfilled. Where else could you have a workshop so full of the real, natural specimens to work with?"

Another, when asked to state the course's weak points, said "I sincerely feel that there were no weak points at all. The program should continue to be built along the schedule as it was this time."

Most of those involved said they felt one of the most important things they learned was how to enjoy the outdoors. Several also mentioned that their abilities to work with others were strengthened, and that they learned that interdependence among their fellow man is extremely important.

One student wrote that the most important thing he learned was "How to live in the wilderness and have fun and learn at the same time." Another said he discovered "What peace and quiet really is."

When asked, "Would you go again?" the following comments were received:

"Yes. There are still hills to climb, flowers to identify, wildlife to see and hear, rocks to collect and fish to catch and eat."

"Yes. I don't believe a person can learn everything in a week and I think men should be jolted back into reality every so often. It was the most rewarding experience that I had during my graduate work. Thanks."

"Yes, for so many reasons. It was one of the best educational experiences of a lifetime, and will be remembered for a long, long time."

"Yes. Because actual association is one of the greatest learning situations that a person can have. The carryover will be more important as time goes on."

"No, I wouldn't go again. I believe I learned enough to fill several books, but I'm afraid I'd be too old to do it again."

SUMMARY

This publication is designed to explain the wilderness trip that is the primary activity of Health and Physical Education 537, "Experiences in Outdoor Education," offered at Chadron State College.

It attempts to inform the reader of the following:

1. The programs that were offered prior to the wilderness trip and thus served as a basis for this culminating activity.

2. The objectives of the course and how they can be achieved through the use of experienced resource personnel.

3. The site for the adventure and how its location, terrain and expanse of openness allowed for the course objectives to be obtained.

4. The planning of the schedule of activities and the procurement and preparation of food, and the courses that were planned for the outdoors by the resource personnel.

5. The educational experiences and how the outdoors can provide a laboratory for new learning experiences as well as a place for healthful and recreational exercises.

6. Comments made by the course participants.

Although relatively new on the college curriculum, outdoor education is as old as man himself. For centuries man's very existence depended upon his ability to cope with the outdoors. But as man became the master of his environment and began spending most of his time working and playing with a roof over his head, he lost some of the enjoyable aspects of the outdoors as well as many of its benefits.

This course was planned to teach teachers and future teachers how they can use the outdoors as a classroom as well as a playground. By using the outdoors in learning experiences, educators can take full advantage of

nature's resources in making their students aware of the great opportunities that are available for them away from the four walls of the conventional classroom.

The course also was presented to help make recreational activities more enjoyable. As man gains more leisure time, he will undoubtedly spend more of it in the outdoors. If this time is enjoyable and not frustrating, so will his life be more enjoyable and consequently his work more beneficial.

Supporting Material #4

HPER 537 EXPERIENCES IN OUTDOOR EDUCATION

SCHEDULE

Wednesday -

1:00 - 5:00 p.m. Registration - Armstrong Building, Chadron State

Pick up meal ticket for Cafeteria

Room assignment in Edna Work Hall

Pay balance of cost ($60.00, plus 3 hrs. credit)

Thursday -

8:00 - 11:30 a.m. Class Session - Scottsbluff Room, Campus Center

Biology - Miss Doris Gates

Astronomy - Mr. Jim McCafferty

Mtn. Man History - Mr. Jim Hanson

Horsemanship - Mr. Chuck Cogdill

Food and Work Details - Mr. Don Berlie

Recreation and overall trip - Mr. Mack Peyton

1:00 - 2:30 p.m. Earth Science - Mary Peyton

2:30 - 4:00 p.m. Check list of equipment and supplies - Gymnasium

Required items checked -

Shortages may be purchased at Sunset Sporting Goods

7:00 - 9:00 p.m. Map Reading and Compass Work - Mr. Jack Romanek

9:00 - 9:30 p.m. Slide Presentation

Friday -

7:00 a.m. Drive to Casper, Wyoming, Casper College

10:30 a.m. Visit Sunset Sporting Goods Co. for purchses

11:00 - 11:30 a.m. Waati Maps - Mr. Waati

11:30 - 12:30 Geology Discussion - Mr. Whitney Bradley

12:30 noon Lunch at Casper College Cafeteria - Purchase Wyoming Fishing License and Reservation Permit

1:00 p.m. Leave Casper - Arrive Ft. Washakie-Visit Sacajewia and Chief Washakie graves - Drive to St. Lawrence Ranger Station - Set up Base Camp

6:00 p.m. Steak Dinner

8:00 p.m. Entertainment & Announcements

Saturday -

6:00 a.m. Arise - 1st Work Detail report to Mr. Berlie

7:00 a.m. Breakfast call - Blueberry pancakes, bacon and eggs

8:00 a.m. First General Session

Larry Murray - Coordinator of Indian Affairs

Hiram Smith - Lander District Ranger, Shoshoni Nat'l. Forest

Ed LeClair, Jr., Demonstrations

Tying Diamond Hitch

Tying on a Pannier

Explanation of Trail Riding

Practice time

12:00 noon	Lunch
12:30 p.m.	Saddling and Bridling the horse
2:00 p.m.	Practice time - 5-mile ride to Little Horse Peak (Ele. 10,000)
	Wild Horse Watch - Mustang Catch (Optional)
6:30 p.m.	Preparation for evening meal
7:00 p.m.	Evening meal
8:00 p.m.	Pack Pannier and duffel in preparation to move out

Sunday -

6:00 a.m.	Arise to breakfast call
7:00 a.m.	Breakfast
	Bridle and saddle horse
8:00 a.m.	Leave Base Camp, pack into Lydle Lake area
	Class sessions on ride in - Miss Gates, Biology at St. Lawrence Creek (3 miles-Elev. 9,400) Tybo Peak (5 miles-Elev. 11,000)
1:00 p.m.	Water stop and Lunch at Paradise Basin Meadows (Elev. 9,837)
	Wait for Pack Train - Picture taking
3:30 p.m.	Establish camp at Lydle Lake (Elev. 9,926)
	Site selection for tents, work details assigned by Mr. Berlie
4:30 p.m.	Establish teaching stations, orientation to surrounding area

6:00 p.m.	Evening meal
7:00 p.m.	Mr. Jim Hanson, Introduction to Mtn. Man History

Monday -

6:00 a.m.	Arise to breakfast call
7:00 a.m.	Breakfast
8:00 a.m.	Miss Gates - Introduction to Biology of the area
10:00 a.m.	Orienteering - 4-mile course (Romanek & Peyton)
12:00 noon	Lunch (For those who have returned)
1:00 p.m.	Miss Gates - Field Trip - Wildlife and Population habitat (Sheep Corral, Paradise Basin -Elev. 9,837)
3:00 p.m.	Mr. Berlie - Environmental Session
5:00 p.m.	Evening meal
7:00 p.m.	Mr. McCafferty - Introduction to Star Study Daylight first
10:00 p.m.	Sack time - lights out

Tuesday -

6:00 a.m.	Arise to breakfast call
7:00 a.m.	Breakfast
8:00 a.m.	Techniques of recreational pursuits Casting, Angling, Photography, Exploration
12:00 noon	Lunch
1:00 p.m.	Resource People in Group Specialty Bird Watching, Rock Hunting, Driftwood, Shunpiking, Scene Collecting

6:00 p.m.	Evening meal
7:00 p.m.	Elk Watch
9:00 p.m.	Camp Fire Discussion - Liar's Session
10:00 p.m.	Sack time - Lights out

Wednesday -

6:00 a.m.	Arise to breakfast call
7:00 a.m.	Breakfast
8:00 a.m.	Mary Peyton - Geology of the area
12:00 a.m.	Lunch
1:00 p.m.	Fish Contest - Steamboat Lake (Elev. 10,019)
6:00 p.m.	Fish Fry
7:00 p.m.	Vesper Services
7:30 p.m.	Awards presentation
9:00 p.m.	Mr. McCafferty - Astronomy
10:00 p.m.	Sack time - Lights out

Thursday -

6:00 a.m.	Arise to SURVIVAL breakfast call
8:00 a.m.	Back pack trip - Hatchet Lake (Elev. 10,476)
	Sleeping bags, fishing poles, NO food
12:00 noon	SURVIVAL lunch - Everyone is involved...
1:00 p.m.	Biology and Geology study in the area
5:00 p.m.	SURVIVAL evening meal - each person prepares his own
9:00 p.m.	Astronomy problems assigned earlier
10:00 p.m.	Sack time - Lights out

Friday -

6:00 a.m.	Arise to SURVIVAL breakfast call
7:00 a.m.	SURVIVAL breakfast - everyone prepares something...
8:00 a.m.	Back pack return to Lydle Lake
	Biology and Geology sessions on the return
12:00 noon	SURVIVAL lunch
1:00 p.m.	T. B. A.
5:00 p.m.	Chuck Wagon Meal - Berlie and Staff
7:00 p.m.	Jim Hanson - Mtn. Man History
8:00 p.m.	Critiques - (I was there)
	Frank Discussions
10:00 p.m.	Sack time - Lights out

Saturday -

7:00 a.m.	Arise to breakfast call
8:00 a.m.	Breakfast
	Clean up camp, pack, and prepare to move out
9:30 a.m.	Back pack out of camp by map and compass back to
	Base Camp
12:00 noon	Pack lunch on top of mountain (Sheep Spring - Elev.
	10,600)
4:30 p.m.	Arrive back at Base Camp
6:00 p.m.	Evening meal
7:00 p.m.	Peace Pipe Council - Hanson and LeClair
10:00 p.m.	Sack time - Lights out

Sunday-

6:00 a.m.	Arise to breakfast call
7:00 a.m.	Breakfast
8:00 a.m.	Leave Base Camp for Casper via Ft. Washakie
12:00 noon	Lunch
3:00 p.m.	Arrive back in Chadron - Unpack at Gymnasium

Monday -

8:00 a.m.	Class session - Scottsbluff Room - Campus Center
	Critiques and evaluation forms
	Class assignments turned in.....

Supporting Material #5

EARTH SCIENCE AGENDAS

The 1970 field trip had the following schedule:

July 6: Registration and Briefing

7: Departure and study of the Black Hills, South Dakota

8: Devils Tower National Monument, Wyoming, and travel to the East Entrance, Yellowstone National Park

9: Yellowstone National Park

10: Teton National Park and travel to Craters of the Moon National Monument, Idaho

11: Canyon of the Snake River and travel to Salt Lake and Vernal, Utah

12: One day river run through Split Mountain Gorge of the Green River

13: Dinosaur National Monument and travel to Moab, Utah, in Paradox fold and fault region

14: Travel: Comb Ridge, Goosenecks of San Juan River, Monument Valley, and Navajo Reservation to Grand Canyon National Park Arizona

15: Hike in and out of Grand Canyon

16: Flagstaff, Sunset Crater Volcanic Field, Walnut Canyon National Monument, Petrified Forest National Monument, Painted Desert and travel to Gallup, New Mexico

17: Chaco Canyon National Monument, Aztec Ruins National Monument, Farmington-Bloomfield oil and gas fields, travel to Mesa Verde National Monument

18: Mesa Verde National Monument and travel to Ouray, Colorado

19: Travel to Grand Junction, Colorado, and Denver by the route used in the ESCP Rocky Mountain field trip (in reverse direction)

20: Return to Chadron

21: Critique of the trip

The 1971 field trip was a 16 day outdoor learning experience which included a 279 mile raft trip through the Grand Canyon from Lees Ferry to Temple Bar Marina.

Summer 1971 Itinerary

7/28 Leave Chadron at noon - Denver KOA campground

7/29 Denver - Moab, Utah KOA campground - cross section of the Rocky Mountains, correlation of geology with gravity map. Observations of upper Colorado River, Paradox Fold & Fault Belt, Arches National Monument.

7/30 Moab, Utah - Lee's Ferry, Arizona: Comb Ridge Anticline; Goosenecks of San Juan River; Monument Valley; igneous intrusions on Navajo Reservation; Marble Canyon.

7/31 - 8/7 Raft trip down Colorado River through Grand Canyon with Hatch River Expeditions. Clyde Dollar of Vermillion, So. Dak. serving as Historian, retracing the 1869 Powell Journey. Observations of Geology of Colorado Plateau; the sedimentary sequence, igneous and metamorphic activity; erosion; origin of rapids and falls, concept of

geologic time; geologic structure; exhilaration of river running in wilderness. Archaeological sites were visited, when appropriate.

8/7 Diamond Peak, Ariz. - Grand Canyon National Park. Observation of Canyon from the River, after having run it in rafts.

8/8 Grand Canyon - Oak Creek, Arizona

Sunset Crater Volcanic Field; Tuzigoot & Wupatki Indian Ruins. Oak Creek Canyon.

8/9 Oak Creek, Arizona-Mesa Verde, Colorado

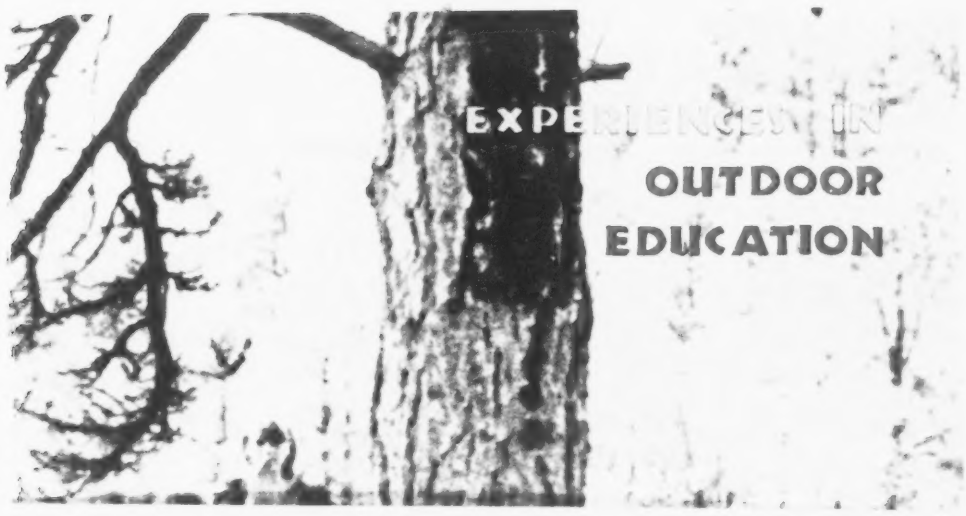
Walnut Canyon National Monument; Painted Desert; Petrified Forest National Monument; Navajo Reservation; Shiprock volcanics; Mesa Verde National Park.

8/10 Mesa Verde, Colorado - Gunnison, Colorado

Tour Mesa Verde Ruins; San Juan Mountains with glacial features and mineral districts. Black Canyon of the Gunnison River.

8/11 Gunnison, Colorado - Denver, Colorado. Cross section of Southern Rocky Mountains. Arkansas River drainage, Front Range and Denver's geologic setting.

8/12 Denver - Chadron across High Plains.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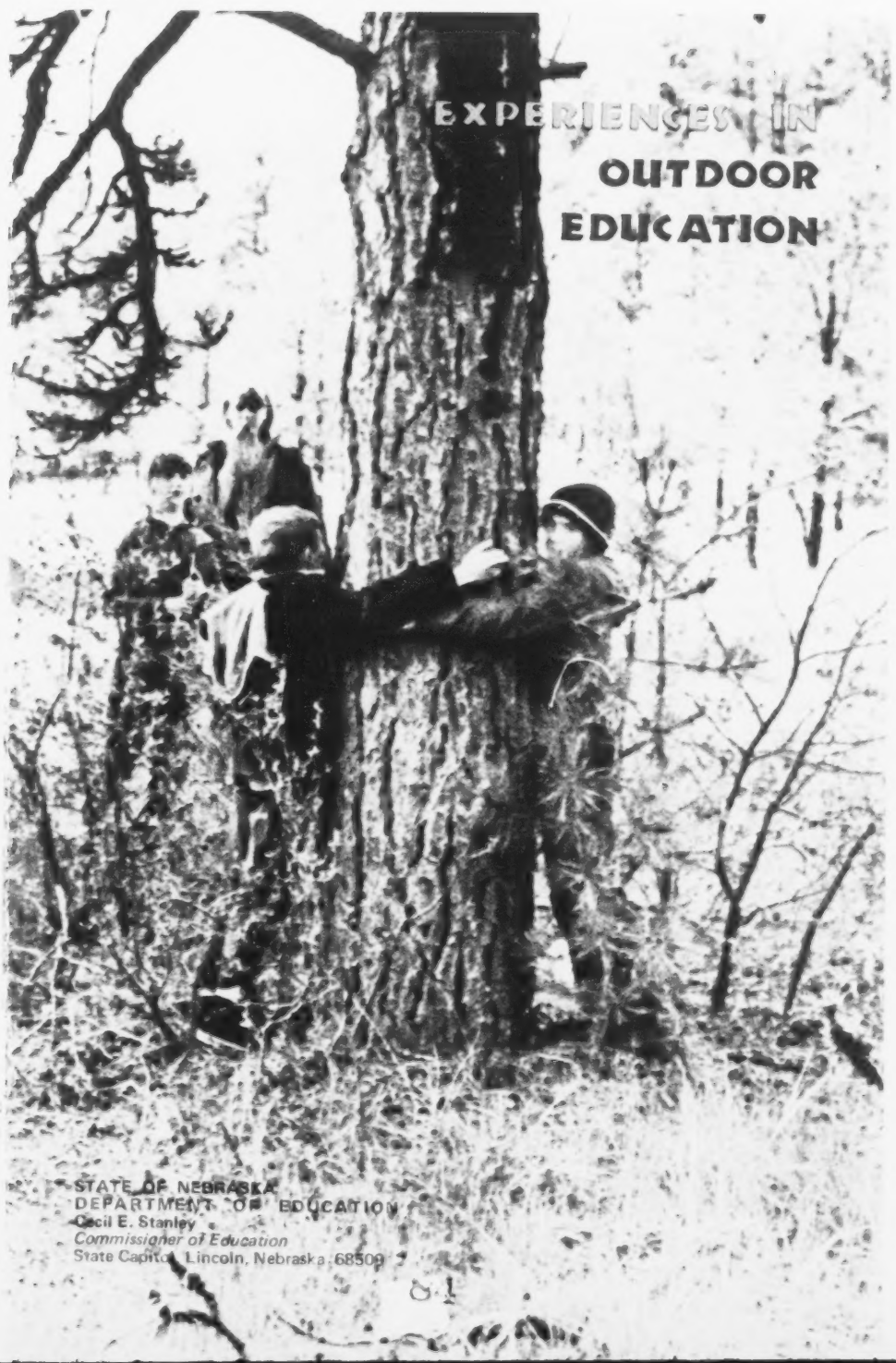

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EXPERIENCES IN OUTDOOR EDUCATION

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86

PREFACE

A principal purpose of this publication is to encourage the schools of Nebraska to consider seriously a promising facet of education – that of outdoor education. At the same time, the Department is taking this opportunity to recognize a sound, ongoing program of outdoor education which has been developed in the northwest part of the state and which emanates primarily from Chadron State College. This program has various unique characteristics which may be helpful in providing direction for other schools planning to develop similar experiences in the outdoor environment.

Those who have visited the program are impressed with the enthusiasm of the boys and girls involved. Many interesting curriculum decisions have been made by teachers and administrators in regard to pupil involvement, as well as the selection of behavioral objectives that are potential in the outdoor dimension and appropriate to the camping aspect.

The joint curriculum planning conducted in the elementary grades of the schools at Chadron, Rushville, Crawford, and Hemingford, in cooperation with Chadron State College, is unique. Observers note well the curriculum content that is wisely presented in the classrooms **as preparation for the outdoor experience.**

The role of Chadron State College, as it sees its leadership responsibility for its section of the state, is significant. Those segments of outdoor education which have been built into the teacher-education program at Chadron State emphasize how important the well-prepared teacher is to the success of the undertaking. The Department of Education has purposely included a description of the Chadron State preservice program to give planners a better idea of the background which would be considered reasonably adequate for teachers involved in outdoor education.

May we express our appreciation to Chadron State College for its basic work in making this publication possible. We wish especially to thank Mack Peyton, Assistant Professor, Health and Physical Education, for writing the original manuscript.

CECIL E. STANLEY
Commissioner of Education

TABLE OF CONTENTS

Chapter		Page
I	**Outdoor Education: An Overview**	
	Initiating an Outdoor Education Program	1
	Aims and Objectives of Outdoor Education	1
	Concepts of Outdoor Education	2
II	**Outdoor Education In Action**	
	Chadrón Outdoor Education Project	5
III	**Teacher Preparation In Outdoor Education**	
	Background Important for Program Success	21
	Outdoor Experiences for Teachers	22
Summary		28

CHAPTER 1

OUTDOOR EDUCATION: AN OVERVIEW

Outdoor education might be described as learning in and for the outdoors. As the late L. B. Sharp stated, *"That which can be best learned inside the classroom should be learned there; and that which can be best learned through direct experiences outside the classroom in contact with native materials and life situations, should there be learned."*

To promote the latter type of learning, schools need to offer experiences through which children can involve themselves in a unique outdoor education program. Such a program can help each student live his today to the fullest, as it prepares him to be ready for an unknown tomorrow.

Initiating an Outdoor Education Program

The initiation of a school-sponsored outdoor education program is not unlike many other curriculum innovations. Preparing plans concerned with the securing of information about other outdoor education programs; inventoring community resources for leadership, materials, and facilities; and determining the needs and interests of the community – all this has to be done in order to estimate the contribution an outdoor education program can make to the total school curriculum.

Aims and Objectives of Outdoor Education

As is the case with the various subject fields included in the total school curriculum, the aims and objectives of an outdoor education program should be clearly stated and understood. Generally, the first guiding principles to be adhered to are:

1. **The primary goal of an outdoor education program should be concerned with the total growth of the students, and**

2. Experiences in the outdoors should be planned to the end that desirable changes in student behavior will be produced.

In recognizing the vast learning potential of a well-planned and well-conducted outdoor education program, the following objectives illustrate the broad range of educational contributions which students can enjoy through participation in such a program:

1. to reinforce the principles of natural science, conservation, social sciences, language arts, and physical education;

2. to reinforce citizenship through allowing children to live and share together, accept responsibilities, and learn through group planning.

3. to reinforce the worthy use of leisure time through outdoor experiences of health and physical education;

4. to reinforce an appreciation of all living things in the outdoors;

5. to provide a friendly and informal atmosphere of learning through fellowship and "fun experiences."

Concepts of Outdoor Education

The plan of action of an outdoor education program infringes upon traditional class scheduling practices. The amounts of time involved cannot be equated to a certain required number of minutes or credits; nor is the ordinary school routine followed. Gone is the rigid formality, bells do not ring, and the outdoor activities are tailored to the needs and interests of the students. An entire outdoor education program should be based on the following sound educational concepts:

1. providing directed learning through planning, executing, and evaluating activities within the program;

2. motivating learning by appealing to the interests of the students;

3. providing for individual differences of children by allowing each child to express initiative, show ability, and achieve some degree of status;

4. providing a wide range of satisfying experiences for uniting all in the practice of democracy;

5. utilizing existing nearby facilities.

CHAPTER II

OUTDOOR EDUCATION IN ACTION

Schools concerned with improving their total curriculum offerings through the addition of an outdoor education program might gain a clearer insight of its potential through an investigation of an outdoor education project which has been in operation in the northwestern area of Nebraska for the past several years.

Chadron Outdoor Education Project

At Chadron State College, the Health and Physical Education Department sponsors an outdoor education program. Sixth-grade pupils and their teachers are offered directed learning experiences which are related to the total curriculum, through the use of the Chadron State Park as a laboratory to supplement classroom learnings.

This project was conceived by Mr. Mack Peyton, Assistant Professor of Health and Physical Education, Chadron State College. Currently involving the communities of Chadron, Crawford, Hay Springs, Hemingford and Rushville, the program involves all sixth-graders and their teachers.

One-day Excursions

To prepare the sixth-grade students for an extensive three-day outdoor education experience held in May of each school year, one-day outdoor education activities are cooperatively planned by the college outdoor education class members and the classroom teachers. One-day trips are made to visit points of interest in western Nebraska and southwestern South Dakota. The natural wonders, historical sites, and sanctuaries of the area are visited, and the talents of resource people, on location, are utilized to the fullest.

To facilitate proper supervision of the students, and to most effectively enhance the learning process of the outings, the rules of conduct for the one-day outings are established well in advance by the classroom teachers and members of the outdoor education class. From these one-day outdoor experiences, the three-day outdoor education project becomes *"icing on the cake."*

Location of Three-day Project

The location of Chadron State Park, nine miles south of Chadron, provides a unique setting for the school outdoor education program. Since the park is not yet opened to the general public during the first half of May, Mr. Vic Leonard, Park Superintendent, affords total use of the park to the outdoor education project.

Financing the Outing

A camping charge of $1.00 per day per person has been established, and each school system has agreed to absorb this cost within its budget.

Food costs for the three-day outdoor education program have been determined to be $6.00 per person. A savings program is initiated during January of each year, whereby each student can save his $6.00 by depositing weekly into a savings account. The students are given the responsibility of managing the account. They learn to keep a running ledger, and be punctual and frugal. No students, however, are denied the opportunities of the outdoor education program because of a lack of funds.

Equipment, Supplies, and Transportation

All equipment and supplies for use in class work and after-study hours are furnished by the participating schools and Chadron State College. Transportation of the students to and from Chadron State Park is provided by each school. Some buses remain at the park during the entire three-day program for use by teachers and students on excursions to out-points of interest.

Housing

Housing is provided for by utilizing the housing units at the park. An element of *"roughing it"* is offered to approximately one-third of the students who stay in the old CCC barracks which were left from the program of the 1930's. A large centrally located building with cooking facilities, serves as the dining hall. The building also serves as a classroom in case of inclement weather.

Lights out . . . that signal disappointing to all when so much has to be talked over.

Parental Permission, Insurance

Parental permission is required of all students who participate. An ongoing public relations program keeps parents informed and up-to-date on the outing plans. To avoid unnecessary congestion and the disruption of meaningful learning experiences, parents are not encouraged to visit the park during the outing.

The cost of personal insurance for the students is the responsibility of the parents. All teachers and college personnel are covered by their respective school insurance policies, as the outdoor education program is considered to be a part of the regular school routine.

The entire three-day outing is well supervised by the teachers and the college outdoor education class members on the basis of a 24-hour day.

Health and Safety Precautions

Services of a school nurse are available 24 hours a day. (The two Chadron State College nurses alternate.) The nurses, along with the teachers and resource persons, assume the extra burden without special compensation.

. . . an ounce of prevention is worth a pound of cure. School nurse says to say, "ahh."

Daybreak: Start of Program

The day at camp starts at 6:30, with *"reveille"* blown by one of the students. Forty minutes are allowed for rising, dressing, washing, and assembling at the dining-hall area. Vigorous exercises before breakfast whet the appetite for a hearty meal.

All students take turns assuming work responsibilities in the dining hall. Table setting, cleaning up, and KP chores are shared by all students. Food procurement and preparation is provided by an expert outdoorsman who volunteers his time and services.

Flag raising . . . it's a tradition in camp. Raising the flag, learning to fold it, displaying courtesy, protocol, and realizing the significance of the flag — all are important features.

Vigorous exercises whet the appetite.

A hearty breakfast . . . fixed by experts.

Curriculum Offerings

Typical class activities at camp begin at 8:00 a.m., and include a wide variety of subject-matter areas. Specific content is determined co-operatively by the students and teachers, much depending upon the time and space available. The greatest contribution of the teacher to the outdoor education program is a positive attitude. She is not expected to be an expert on the outdoors, but is expected to participate in all of the activities. She finds that she learns right along with the students. The resource persons and the college students assist in their major areas of interest. Following are five curriculum areas which have been included in the Chadron Outdoor Education Project.

Describing what is actual . . . abstracting hidden ideas, telling what is represented.

Science

The emphasis in the area of science is to help students place in the proper perspective, the great variety of materials in the outdoors. Efforts are made by the teacher and resource persons to assist the students in understanding the concepts of space, time, and change. The vastness of space becomes a reality as students pace off a mile or an acre to solve a problem. Time becomes important as the life cycle of a tree is determined; and an understanding of change evolves as the opportunities to see rocks crumble, soil wash away, and water evaporate are made available.

Frame the tree with words . . . height and age concepts . . . determining size — these are learned by the trial and error method as a result of normal curiosity.

The interrelationship of living things is explained through the observation of insects, birds, and people. Emphasis is placed upon the fact that the destruction of some forms of life can adversely affect other living forms.

Resource persons in the areas of biology, earth science, and astronomy avail themselves of the opportunity to present learning opportunities to the students. The open sky at night becomes a laboratory for star study, and each student learns to locate and identify stars, constellations, and galaxies. No longer do they look at the sky and see only stars. Earth science becomes something more than just rocks, as a resource person explains the composition and value attached to those *"old rocks."*

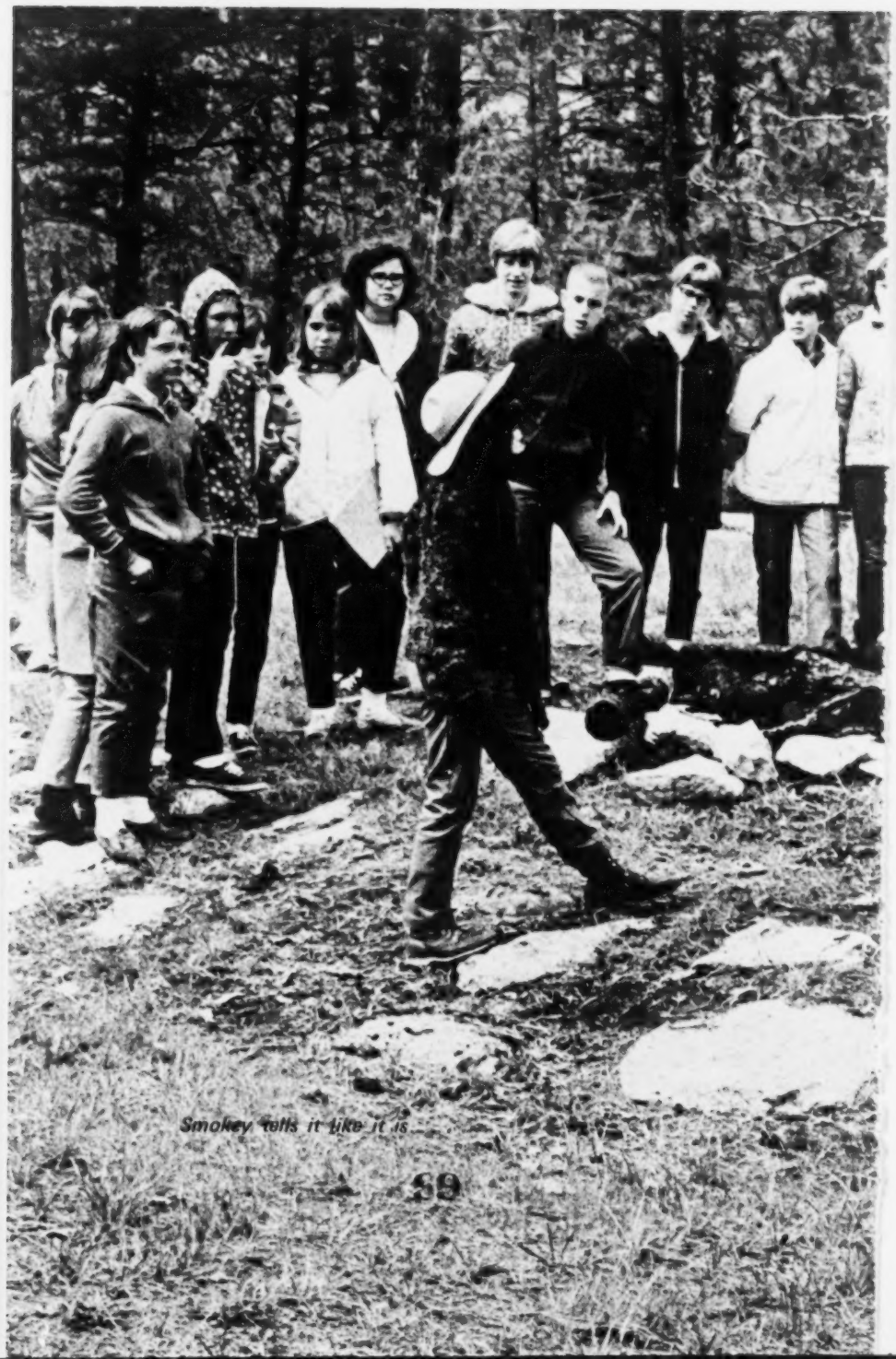
Rock identification can be fun . . . now that pieces come from the moon, interest is high, inquiry is stimulated.

Ornithology receives attention during study classes and nature hikes. The common birds are identified, and special emphasis is placed upon determining habitats, and such things as *"pecking order."* General science involves the observation of seasonal changes, and subject matter related to weather.

In the entire area of science study, field identification is emphasized. Most important is the emphasis placed upon understanding relationships, uses, and life histories. Free-discovery exploration is encouraged to challenge all students to find something of significance.

Making relationships . . . naming something in the outdoor setting.

Nature hikes are taken by teachers and students for the purpose of exploring the many life forms found in nature. Lists are kept of all creatures that fly, hop, crawl or run. Special attention is paid to such



Smokey tells it like it is

things as the growth of trees, grass, and different fungi. Rocks are turned over to see what living matter is underneath.

Questions are posed by the teacher as to what was observed, how many different objects can be named, possible uses of different objects, and notes are made of changes that have taken place.

Conservation

Conservation activities include soil study, prevention of soil erosion, planting, and providing wildlife cover. Efforts are made to identify desirable and undesirable practices related to the best use of natural resources. Resource persons from the Forestry Service in the Chadron area have participated wholeheartedly in the program.

Social Science

Although more time is spent on the natural and physical sciences when teaching in the outdoors, the teachers and resource persons utilize the natural environment to explain the *"how"* of history, geography, and political science. Through exploring old homesites, mine areas, and patterns of settlements, the students are able to visualize and learn how previous generations lived, what work they did, and why they flourished or died out.

A special project has been to reconstruct a western town – selecting and buying homesites; applying for deeds to homestead lands; electing town officials; solving such problems of early towns as zoning, water, rubbish, disposal, etc. A special plaster-of-Paris model of the local surrounding area is designed and constructed by the students, and social-science study problems are solved *"on the spot."* To see and explore the area involved helps to make the course of study more meaningful, more relevant.

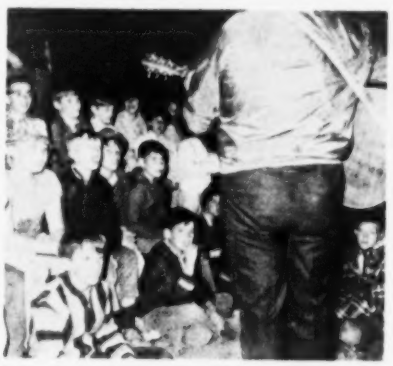
Language Arts

Seeking a creative outlet has always been akin to the natural world. Classes in art and music attempt to capture the essence of beauty, color, form, and imagery, through interpreting and re-creating some of the mysteries of nature. Slower students are aided as a result of

balanced activities. Eye-hand coordination is enhanced through actual work and observation.

Music in camp becomes a memorable experience for all campers. Songs for fun and enjoyment create a feeling of fellowship and friendship. Imitation of the sounds of nature becomes a must for all students.

Storytelling around a campfire becomes a good place for the hesitant student to perform, as all are encouraged to participate. Performing before a group no longer becomes a chore.



A song around the campfire . . . friendship and enjoyment for all.

Physical Education

Accepting the broader concept, education for the outdoors, involves the teaching of skills that allow for participation by all, not a select few. Relating recreational activities to academic classwork help to vitalize classroom learning. The development of skills, attitudes, and appreciations are necessary for intelligent use of the outdoors.

Recognizing that the time is now for programs of this nature, activities are provided to better educate for living. These activities are usually scheduled in the after-study hours, 4:00 to 10:00 p.m.

Shooting. Classified as an activity for young or old, male or female, physically fit or handicapped, shooting offers a recreational pastime for all ages. Every student is given the opportunity to fire a gun after he has attended sessions

on the proper use and safe method of handling firearms, State game laws, and reasons for their enforcement. The Nebraska State Patrol provides authenticity to the program, as do members of the local Rod and Gun Club.

Getting the low-down . . . knowing the laws and all safety factors before going out to shoot.

Casting and fishing. Fishing is an activity enjoyed by the young and old, rich and poor, the world over. Skills of fishing are explained to all students, involving the use of the rod and reel. Essential skills of angling are taught by resource persons. As each student learns to cast, he finds that to cast successfully is fun, a fulfillment of an inherent desire.

Putting our learnings to practice.

Watch and learn . . . skills of rod and reel.

Archery. Archery is a fascination for most everyone and has grown to be a top sport in the United States. It is easily taught by a well-trained instructor, and allows students to learn to shoot the proper and safe way.

Expert advice . . . sight down the arrow, smooth release.

Practice makes perfect . . . take turns.

Boating. A challenge to the student which combines knowledge, skill, and coolheadedness in successfully engaging and utilizing a force of nature, is the skill of rowing a boat. Propelling a boat becomes stimulating in itself, and equips students with skills of wise handling and safety. All students are exposed to the methods of self-rescue and aiding other victims of aquatic accidents.

Orienteering. A map and compass course that offers competiveness among the students to be *"the first one home,"* has proved to be a true learning experience. Students gain confidence by fending for themselves in the woods. In doing so, they develop a favorable attitude toward outdoor life.

Safety and first-aid. Safety and first-aid constitute a primary element of the school outdoor education program. Resource persons and members of the college outdoor education class instruct students on the proper methods of prevention and treatment, especially those adapted to the outdoors.

First-aid for all . . . practical application for proper action when required.

Hiking. Walks into nature's own setting for the fun of it provide many worthwhile experiences. Hikes become educational through the discovery of local flora and fauna as pointed out by teacher and resource persons.

Nature hikes . . . look under a rock . . . pick up a leaf . . . what kind of bird is that?

CHAPTER III

TEACHER PREPARATION IN OUTDOOR EDUCATION

Most teachers find themselves at a loss concerning what to teach and how to teach in the outdoors. Opportunities are rather scarce for receiving firsthand outdoor experiences that provide a worthwhile educational background and help insure the success of an outdoor education program.

Few colleges and universities, at the present time, offer opportunities for undergraduate or graduate students to learn how to cooperate with nature; to develop an appreciation of living in solitude; to observe the naturalness and grandeur of the wilderness; to develop abilities of self-reliant living and traveling in wild areas; and to explore geologic, biologic, and historical remains in an area unaffected by human activity.

Background Important for Program Success

Teachers with a background of outdoor education experiences are able to offer more meaningful learning experiences for the children. Through seeing, hearing, and doing in the outdoors, children are challenged to seek satisfactory solutions to perplexing problems. The student in the outdoors is guided and aided in his quest for answers because the teacher *"has been there,"* and can *"tell it like it is."*

Developing in students an appreciation of the outdoors, and helping them recognize and realize the contributions resulting from the renewal and fulfillment of every human being in body and spirit – these are outcomes the teacher may realize from her teaching efforts because of a background of satisfying outdoor education experiences.

Organizing and administering outdoor education programs in a natural setting becomes second nature to teachers who have been fortunate enough to have experienced wilderness training. Seeing earth science in the raw, exploring biology in a natural setting, and observing the sky without the obstructions of city buildings, lights and sky-obscuring fumes – these provide teachers with background

experiences that lend much to the development of successful outdoor education programs. Lively contacts with the realities of life through extramural living and thinking in the outdoors is a *"must"* for teachers who plan to implement outdoor education programs as a part of the total school curriculum.

Outdoor Experiences for Teachers

Repeating in effect the preceding paragraph, a meaningful outdoor education program for teachers must include experiences in close contact with nature, in a wilderness setting unobstructed by civilization. Learning to live off the land in a survival training course, getting to *"feel"* nature, and observing the wonders of the outdoors do much to broaden the educational background of would-be teachers of outdoor education.

Chadron State College Program

An excellent example of an outdoor education program for the training of teachers is that which is offered by the Health and Physical Education Department of Chadron State College, Chadron, Nebraska. Consisting of two weeks of intensified training, seven days of which are spent on the Shoshoni Indian Reservation in the Wind River mountains of western Wyoming, **Experiences in Outdoor Education** is offered to graduate students and teachers.

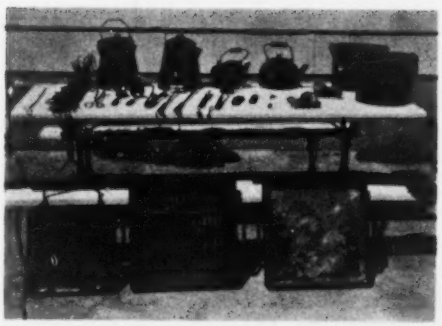
Instructors and Resource Persons

Instructors for the class are drawn from the areas of astronomy, biology, geology, Indian history, and physical education. Resource persons include: National Forest Rangers; a representative of the Bureau of Indian Affairs; a Vocational-Technical Instructor (Auto Mechanics); Registered Outfitter; an Indian Chief and firefighters.

Getting Ready

The first day and a half consist of *"getting ready"* activities. Registering for class, meeting with class instructors and resource persons for an overview of the planned activities, and packing and loading equipment and supplies for the seven days of *"roughing it"* are completed.

Cooking utensils . . . taking only what is necessary for survival – light, but very durable.



Moving to Base Camp

Setting out at daybreak, the group proceeds to Wyoming and the base camp. Fishing licenses and a reservation permit for the seven days in the wilderness are obtained. Tents are staked out, and a steak fry is now in order. On the first night in base camp, group sessions on mountain photography and map reading begin the outdoor education instruction.

The morning of the fourth day is spent in preparing for the 13-mile ride into the wilderness. Learning how to bridle and saddle the horse, practice in tying the *"diamond hitch,"* learning to pack equipment in a *"panier"* on the horse, and getting the feel of riding – these round out the morning activities.

Would-be cowboys . . . thirty-five strong, hearty souls who learned what it was like to ride on horseback 13 miles into the wilderness.

Load 'em up — move 'em out! . . each participant bridles and saddles his own horse — a real "first" experience for many.

The afternoon is spent in learning sessions. A forestry representative explains the rules of camping; a representative of the Bureau of Indian Affairs discusses the use of the reservation and related topics; and a tribal Indian chief gives an insight into the customs and living patterns of the Wyoming Indians.

On the trail . . . down the slope and over a stream become routine along the 13 miles to Raft Lake.

Daybreak of the fifth day marks the departure for the 13-mile ride into the wilderness. Climbing from an altitude of 9,100 feet at base camp and crossing Windy Pass at 12,000 feet is an unforgettable experience. The crisp air of the wilderness campsite, altitude 9,300 feet, is sharp and clean. Tents are pitched, the campsite is organized into a living unit, and the splendor of the outdoors comes into being.

Wilderness campsite . . . nestled in the pines . . . pitching a tent where a little sunlight shone through.

Snow in July . . . on the top of the pass – 12,000 feet – the snow remains from winter. The air was sharp, but inspiring to all.

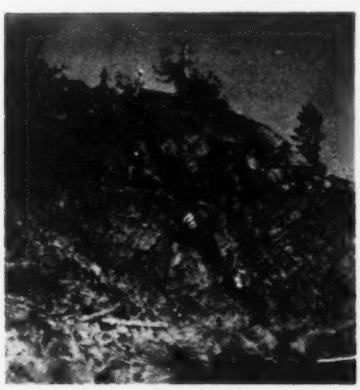
Seven Days in the Wilderness

The seven days in the wilderness are filled with a variety of outdoor learning experiences. Instructors conduct sessions in astronomy, biology, geology, and Indian history. Study in a natural setting is highly motivating as opportunities to see, touch, and appreciate are experienced. Suddenly there is relevancy to all learning. Resource persons reveal new insights and lead discussions in a wide variety of topic areas.

A 48-hour survival course, in which the group learns to *"live off of the land,"* and a session in mountaineering, in which they learn to rappel a mountainside, serve as examples of the many experiences offered.

God's own cathedral . . . the beautiful lake and surrounding area where nothing is stirred, as yet, by man's inventiveness.

Just like home . . . fruit pies made in a homemade Dutch oven, over an open campfire . . . a hearty feast after forty-eight hours of survival training.



Mountaineering . . . rappelling a mountainside — an art for the hearty.

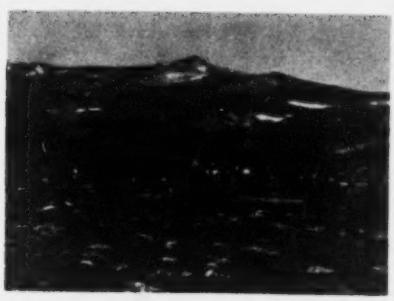
My man Friday . . . for fishing in the middle, energetic members of the group built a raft from fallen timbers in the area.

The Return

Leaving the wilderness campsite is both an anticipated and yet saddening event. Left behind are experiences of enjoyment, hard work, and the closeness of nature. A final powwow at the base camp with the passing of the peace pipe, completes an outdoor experience that will not be soon forgotten.

Never to be forgotten . . . the ride out from the wilderness campsite.

On the last leg . . . coming down the pass, heading to the base camp.



Program Evaluation

After a day's return trip from the Wyoming wilderness area, the group assembles at the college for a complete evaluation of the program. Experiences are relived, and plans to improve the next workshop are discussed.

SUMMARY

An attempt has been made in this publication to point out many of the procedures necessary for a successful outdoor education program by sharing with you an account of the Chadron Outdoor Education Project and its operation.

Paramount to the success of any curriculum innovation is careful planning and organization. The following list outlines important items to be considered:

1. developing aims, objectives, and anticipated outcomes of the program;
2. planning for such things as financing, equipment and supplies, transportation, parental permission, insurance, housing, and health and safety precautions;
3. selecting subject-matter areas to be included in the program;
4. acquiring the services of resource persons to enhance the program;
5. selecting a nearby site for the program;
6. planning for an evaluation of the program to facilitate future improvements.

As is true with any innovative program, one can hardly expect to see radical fundamental changes in students after only three days of exposure. Student interest in certain areas will remain high, plans will be made for family outings, reports will be made of the experiences, and new friendships will remain intact. All involved, however, seem to enjoy having had the experiences of a school-sponsored outdoor education program.

The effectiveness of such a program, many times, is hard to measure. All persons participating should be asked to evaluate what they have experienced. For, it is only through evaluation and revision that program innovations may become strengthened and more relevant to the students.

Supporting Material #7

OUTDOOR EDUCATION WORKSHOP AGENDA

Friday--March 26, 1971

8:00 a.m.	Registration--Camp Norwesca
9:00 a.m.	Opening address, Welcoming and Introductions
9:30 a.m.	Dr. Pat Colgate, Dept. Head, HPE, Chadron State College Lesson Planning
10:00 a.m.	Mr. Robert Tice, U.S. Forest Service--Wildland Conservation
11:00 a.m.	Mrs. Mabel Poppe, College Nurse, Chadron State College First Aid and Safety in the Outdoors
12:00 noon	Lunch
1:00 p.m.	Dr. Larry Agenbroad, Science Dept., Chadron State College--Earth Science
2:00 p.m.	Mr. Don Berlie, Audio-Visual Dept., Chadron State College--Outdoor Environment
3:00 p.m.	Miss Doris Gates, Science Dept., Chadron State College--Biological Studies
4:00 p.m.	Mr. Frank Thoendel, Industrial Education Dept., Chadron State College--Petrology
5:00 p.m.	Mr. Roy Gray, State Dept. of Education, Lincoln--Reference and Resource Materials
6:00 p.m.	Dinner

7:00 p.m. Dr. Vincent Cyphers, Professor-Coordinator, Outdoor Education, College of Education, Northern Colorado University--Reasons for Outdoor Education

8:30 p.m. Mr. Carl Johnson, Director of Environmental Studies, College of Education, Northern Colorado University--Sounds of Nature

9:30 p.m. SLIDE PRESENTATION - HPER 537
Experiences in Outdoor Education--12-Mile Pack Trip into the Wilderness of Southwestern Wyoming

Saturday--March 27, 1971

7:00 a.m. Breakfast

8:00 a.m. Mr. Carl Lukkes, Science Dept. Chadron State College--Meteorology

9:00 a.m. Mr. Jack Romanek, Casper College, Casper, Wyoming--Orienteering - Map and Compass Work

10:00 a.m. Mr. James Hanson, Museum of the Fur Trade, Chadron, Nebraska--Mountain Man History

11:00 a.m. Mr. Paul Manely, State Patrol, State of Nebraska -- Guns - Use and Safety

12:00 noon Lunch

1:00 p.m. Dr. Vincent Cyphers, Professor-Coordinator, Outdoor Education, College of Education, Northern Colorado University--Residence in Outdoor Education

2:00 p.m. Mr. Carl Johnson, Director of Environmental Studies, College of Education, Northern Colorado University--

Practical Work in the Outdoors

Wrap-up

Supporting Material #8

EVALUATION REPORT

HPER 537

EVALUATION REPORT

HPE 537

Experiences in Outdoor Education
Chadron State College
Chadron, Nebraska

presented to

Dr. Edwin Nelson, President
Dr. Larry Tangeman, Vice President of Instruction
Dr. Harold Koch, Dean, School of Education
and Physical Education
Mr. Mack Peyton, Program Director

prepared by

Dr. Thomas P. Colgate
Chairman, HPE
Chadron State College

and

Mr. Roy R. Gray
Administrative Consultant, HPE
Nebraska Department of Education

September, 1971

TABLE OF CONTENTS

Introduction . . . . . Page 1

Section I. - Evaluative Overview . . . . . Page 2

Section II. - Innovative and Exemplary Features of the Program . . . . . Page 4

Section III. - Organizational Recommendations . . . . . Page 8

Section IV. - Evaluative Summary . . . . . Page 15

INTRODUCTION

The enclosed evaluation report of HPE 537, Experiences In Outdoor Education, offered at Chadron State College, under the direction of Mr. Mack Peyton, pertains to the summer 1971 course offering, July 28 through August 9.

For purposes of clarity and utilization, the evaluators have prepared the report in four sections:

Section I. Evaluative Overview

Generalized impressions and reflections of the evaluators, in view of their observations and personalized experiences.

Section II. Innovative and Exemplary Features of the Program

Experiences offered by the course which, in the opinion of the evaluators, are truly unique to a modern educational offering.

Section III. Organizational Recommendations

Generalized and/or specific factors which, in the opinion of the evaluators, would strengthen and expand the scope of the course offering.

Section IV. Evaluative Summary

An abstracted review of the evaluation report, conclusions of evaluators.

Section I
Evaluative Overview

In our rapidly expanding and changing society, which grows more and more complex each year, man must be allowed to escape, if even only momentarily, from the continual pressures and stresses of modern life.

Our nation's industrialized society, with its expanded automation and urbanization has presented man with greatly increased amounts of time for leisure activities; more so than at any time in our nation's history.

Man's native urge for the solitude of the out-of-doors, where he can communicate with nature, away from the worries and pressures of everyday living is increasing. Modern man has forgotten, however, to truly appreciate the natural surroundings of the wilderness. He has become a polluter and destroyer of the ecological process.

Man's presence in the wilderness is easily recognizable by the trail of litter; aluminum and tin cans, glass bottles, assorted paper-product wastes, and unfinished food supplies. He builds campfires, unaware of or unconcerned by the hazards which could, and do, destroy millions of acres of timberland each year; creating scars which take nature decades to heal. Man pollutes rivers, streams, and lakes, and destroys the habitat of countless wildlife which are becoming more and more in danger of extinction.

If not for many countless additional reasons, some of which are listed in Section II of this report, HPE 537, Experiences In Outdoor Education, as offered by Chadron State College, should be continued and expanded to enable a core of concerned individuals to discover and broaden their concern and appreciation of our most valuable heritage--the out-of-doors. Through the recognized multiplier effect, these individuals will in turn educate thousands of additional humans in a true appreciation of our natural resources. In a sense, the course could be the key to saving our planet.

The aesthetic values of HPE 537 are too numerous to describe or define, and are extremely difficult to measure objectively. How do you measure the inner feeling and creative urge in a man as he stands among pollution-free mountains of such grandeur that he himself is incapable of understanding or comprehending? How do you measure the enjoyment a man experiences in an area unspoiled by man; as he observes the sun or moon rise above a snow covered peak, listens to the wind in the trees or the babble of a mountain stream, gazes across a glacial lake, hears the sounds of countless wildlife, and discovers a myriad of brilliant flowers and plants that he never knew existed?

Although aesthetic values and learnings are difficult to measure effectively, learning can be directed toward aesthetic values. The wilderness experiences which are a part of HPE 537 most certainly provide students with the opportunity for such aesthetic value development.

Exposed to an altogether new experience of humanization by sharing material goods, working together, and communicating around a campfire with persons of different ages and different life styles, students of this course cannot and will not return to their respective occupations without undergoing a behavioral change which will be of great significance as they return to their everyday lives. Everyone will view their neighbor in a different, more humanistic light. Teachers will become more sensitive to human needs and understandings, thus will undergo a behavioral change in their teaching techniques and methods. The basic outcome to education can be none other than a greater relevance in course objectives and teaching strategies. The final outcome, of course, is more highly motivated children, anxious and capable of learning; who will become wholesome, productive and mature adults.

In the opinion of the evaluators, HPE 537, Experiences In Outdoor Education, is truly an innovative and exemplary course offering. Unequivocally, the evaluators recommend that this course be expanded and continued.

Section II
Innovative and Exemplary Features of the Program

The following features of HPE, 537, Experiences In Outdoor Education, are, in the opinion of the evaluators, outstanding in relation to current trends in modern education.

Course Location

The Wind River wilderness area, located on the Shoshoni Indian Reservation in western Wyoming, is extremely conducive to a college course of this calibre. The major portion of course time is spent at elevations nearing 10,000 feet. Rugged granite-type mountains, snow fed streams, glacial lakes, and pine filled forests compose the course environment. The course location, in the opinion of the evaluators, is truly ideal in providing students with a rewarding educational experience.

Staff and Resource Personnel

The quality and attitude of the course staff and resource personnel is exceptional. All display evidences of being well prepared in their specialties, and sensitivities to relevance and informality in their teaching strategies.

Aesthetic Learning

The wilderness setting, coupled with the staff's dedication to behavioral change offers countless experiences for aesthetic learning.

Informal Teaching

The wilderness setting provides opportunities for greater informality in both a learning and social atmosphere. Field trips and nature walks into the surrounding area afford students numerous opportunities to observe "first hand," the biologic, geologic and historic features of the area. The stereotyped, formalized, classroom lecture-type teaching techniques automatically revert to experiences in which students "see, feel and smell" all aspects of plant life, rock formations, and animal life in their natural setting.

Discovering eons-old arrowheads and stone tools, observing wildlife in its natural habitat, seeing trees, flowers, lichen, and numerous other types of plant life in their natural state is the rule rather than the exception.

Students are afforded the opportunity to endure the deprivation of everyday luxuries, to survive by "eating off the land," to discover the hardships of the mountain men and pioneers as they carry on their back five or six miles, only those things necessary to enable them to survive in the wilderness, and to feel the isolation that was a part of our forefathers everyday lives as they expanded across and developed our nation.

Spontaneous discussions, both in the wilderness and around an evening campfire focus on student interests and daily experiences.

Interdisciplinary Approach

Although the course is offered through the Health and Physical Education Division of the college, its uniqueness has implications for several disciplines.

While the course meets all of the accepted general objectives of physical education; physiological development, neuromuscular development, interpretive development, and personal-social-emotional development, it also cuts across the disciplines of science (biology, geology and astronomy), social studies (Indian, mountain man, and pioneer history), and has definite implications to English (creative writing and poetry) and music (campfire singing), and art and applied arts (arts and crafts).

Flexibility

The structure of the course allows for those "magic teaching moments." Discovery of arrowheads and stone tools of ancient Indian tribes leads to discussions of the types of materials used, how the tools were made, and the uses the tools were put to.

Finding a branding iron leads to an impromptu session on the use of and reasons for branding cattle. An experienced fisherman's technique of cleaning and dressing a recently caught mountain trout are seized upon, and a learning experience for the entire group is enhanced. Such "magic teaching moments" are seized upon to expand the educational experiences of all involved.

Recreational Aspects

The nature of the course allows opportunities for students to enjoy an extremely wholesome recreational pursuit in conjunction with an academic learning experience.

Unstructured Schedule

The unstructured schedule of the course allows for flexibility in relation to the prevailing weather conditions. A sudden afternoon rain shower could possibly force everyone to seek shelter in camp. An immediate adjustment within the schedule allows for an informalized discussion of the planned experiences, followed by an "on the spot" excursion for discovery and reinforcement of the intended experiences.

Availability of Resource Personnel

A most unique aspect of this course is the availability of a variety of top-notch instructional personnel who are eager and willing to offer their services on an almost cost-free basis. Accepting only reimbursement of the camping fees, educators at the masters and doctoral levels eagerly volunteer their time and efforts for the benefit of students who enroll in the course. Thus, instructor-costs are reduced greatly.

In a time of inflation and rising living expenses, it is hard to imagine a core of normally underpaid educators to so unselfishly give of their time to an educational pursuit. The uniqueness of the class, with its expanding prospects for a greater and more beneficial life for mankind, must be the deciding factor which urges the educators to offer their services.

Provisions for Mutual Sharing

In his most basic nature, man is most concerned with his own survival and well being. The closeness and kinship of thirty people in the wilderness, however, tends to emphasize that "thee are thy brothers keeper".... people truly care for the well-being of their neighbors. Students openly share knowledge, attitudes, and personal goods.

Students are observed in a survival experience where they must "live off the land," sharing the edible plants they found, and most unexpectedly, sharing their "last cigarette," or a piece of "priceless" candy.

The closeness and humanization of thirty people from different walks of life, in an increasingly complex society, is a phenomenon which one would not normally expect to encounter in our modern society.

Section III
Organizational Recommendations

A recent and obviously desirable trend in education is that of accountability. Are we truly accomplishing those objectives and goals which have been stated? To insure accomplishment of the goals and objectives, therefore, we must be able to effectively measure every facet of the course to determine if the end product is that which was intended.

It is with accountability in mind, and the desire to see HPE 537, Experiences In Outdoor Education expanded and broadened in scope that the evaluators offer the following recommendations:

1. The course description and objectives need to be rewritten in behavioral terms. In addition to general course objectives, specific objectives for the various content areas (biology, geology, history, recreational pursuits, etc.) need to be developed in order to facilitate effective measurement of the entire course.
2. The equipment and supplies list should be revised and rewritten. The list could include two categories: (1) basic or required equipment and (2) optional equipment. A few desirable supplies which were omitted from the original list were: insect bite lotion, eye drops, and canteens.

   Try to avoid the use of brand names such as "Off" or "Anacin." Specific recommendations could be offered, i.e., "foam or spray insect repellants are more effective than stick repellants."
3. To enable students to more effectively experience the solitude of the wilderness, it is recommended that only pup tents be utilized, each person having their own tent. If desired, assigned buddies or married couples could share a tent, utilizing the other for equipment storage.

The college might consider the purchase of several (10 or 20) such tents. The college could rent the tents to the students to be used in the existing camping course. In such manner, they could be paid for in a short period of time. The additional rental fees could be utilized to purchase other desirable pieces of equipment (lanterns, cooking utensils, etc.).

4. Activities within the course are often crowded too closely, allowing for little free time. In some instances, class sessions are a rehash of a previous lesson.

   Specific blocks of time (1-3 hours) should be scheduled daily for the pursuit of recreational interests. Such pursuits might include fishing; hiking to look at flowers, rocks, etc.; or simply conversation with other students. Such pursuits would compliment rather than detract from intended educational experiences. Such pursuits would afford the students more time for aesthetic feelings and learnings.

5. It is recommended that there be more student involvement in the preparation of food, especially on an individual basis. The "paper sack breakfast" was a valuable experience. Many similar experiences could evolve, i.e. each individual is given his meal food allotment, and allowed to prepare the food to his satisfaction; (1) breakfast-- eggs, ham or bacon, paper cup of pancake batter -- individual could fry, scramble, or boil eggs, or perhaps make an omelet; (2) dinner -- fish, potato -- fish could be fried, baked, or smoked, potato baked or fried.

   Some items of food will naturally be more efficiently prepared by a cook crew (bread, stews, etc.), but several items could be cooked by each individual, enhancing his learning experience of the out-of-

doors. Recipes for special foods should be explained and posted (banana bread, stews, etc.).

6. It would be beneficial to have two or more different class sessions (biology, geology) running at the same time. This would allow for smaller groups, and, therefore, more interaction between teacher and students. Sessions would be repeated so that everyone would be exposed to similar experiences.

   Field trips and nature walks should continue in small groups. Students need to be advised that group activities are group activities -- the group goes and comes in a unit -- individuals or smaller groups don't separate and wander off -- this rule should be instigated for a safety measure as well as an educational measure.

7. A health history and physical examination should by required of all participants -- staff as well as students. The sudden change in altitude and environment can have detremental effects upon individuals. The staff nurse must be made aware of any persons with possible problem conditions (heart, high blood pressure, diabetes, kidney infections, etc.) so that provisions for proper care can be immediately undertaken.

   A system of notifying base camp in the case of emergencies must be established, so that an unforseeable emergency does not develop into a tragedy.

8. It is recommended that a short and basic first-aid lesson be included in the course. Information should focus on the prevention and care of blisters, burns, scratches, insect bites, etc.

   Students should be advised of physiological changes in the body due to the altitude change: blood thickens, oxygen exchange altered, possible change in menstral cycle, susceptability to headaches.

9. Consideration might be given to the establishing of a camp bulletin board for posting the daily schedule and schedule changes, work committees, menus and recipes, and a student "hot line" i.e., "Help! I'm out of smokes....Will trade delicious candy bar for 5 smokes."

10. A daily review and evaluation session following the evening meal would be very beneficial in getting continual feed-back from the students, and would allow for instant revision in strategies.

    Often students discover things of interest on a field trip or nature walk which they would like to discuss later. A daily review session would provide this opportunity.

11. It is recommended that a broadening of the interdisciplinary approach be considered. The aesthetic learning of the course would be conducive to the areas of English (creative writing), arts, crafts (using local, natural materials) and music.

12. Teaching sessions on horsemanship, fishing, and hiking need to be revised and individualized, especially for those individuals having little or no experience in one or more of the respective areas. i.e. how do you make the horse turn right or left, stop, speed up?; what is the most efficient pace for hiking uphill or downhill? Those individuals already having an adequate knowledge and skill in the areas could assist in the instructing of these areas.

13. Several of the hand-out materials (schedule, information literature, etc.) should be reproduced on pocket-sized paper to more easily facilitate carrying in the wilderness.

14. There are several recommendations in relation to revising and reorganizing the scheduled activities.

A. At the class beginning, spend only one day on the Chadron campus. Complete all needed orientation, and leave immediately in early a.m. of the second day. (Students should have all necessary equipment before leaving Chadron, thus eliminating an extra stop in Casper for purchasing various items. Last minute supplies should be purchased in Chadron...also better public relations with local businessmen.)

B. Utilize Fort Robinson on way to base camp.

C. Spend an extra day at base camp so students can orient themselves to the change in altitude, environment, etc.

D. Schedule a day between the practice ride, and the ride into the mountains. This will allow the non-riders time to adjust to the new aches and pains of riding a horse. Short sessions on the most efficient ways of hiking could be added at base camp; compass reading orienteering could be expanded.

E. Expand survival session to include two nights. Have survival begin after a nourishing breakfast, then hike to survival area; require students to construct a survival shelter (on buddy system, or small groups of 3-4); provide each student with a basic food supply (2-4 teaspoons of instant coffee, bullion cubes, dried fruit, salt -- not enough to feast on, but capable of surviving in case no fish are caught or edible plants are found); set up a barter system during survival -- i.e., "I didn't catch a fish, but I'll trade you my dried fruit or coffee for one." -- The barter system in itself would be a survival learning experience.

F. Reschedule longer hikes (4 miles and over) so that they do not occur four days in a row. Students had to hike approximately 25 miles the last four days -- those with blisters and sore

feet and legs were very uncomfortable. A short time between long hikes for a recovery period is desirable.

15. Pre and post testing needs to be included to effectively measure the course objectives. Accountability dictates that we cannot "assume" that changes occur...we must objectively measure those changes. We must identify the students knowledge and skill levels before and after their experiences to effectively assess behavioral changes. Some suggestions:

    A. A written pre and post test based upon (1) knowledge, (2) attitudes and behavior, (3) skills (all based upon the behavioral objectives).

    B. A student opinionaire to evaluate all sessions in relation to: (1) appropriateness and timeliness, (2) teaching strategies, and (3) effectiveness of teachers.

    Such an opinionaire, filled out on a confidential basis, would be of greater value in evaluating the course than the present "frank discussion" held near the end of the course. As is true in most open sessions, many people hesitate to speak their real feelings, therefore a true and effective evaluation is not accomplished. Effective feedback of the students' concerns and feelings is necessary for effective revision and change.

16. It is recommended that the present written assignment be revised. A plan which would help both the staff in evaluating their effectiveness, and assist the students in an evaluation of their experiences is as follows:

    1. During orientation, have student write a one page report on "The learnings and experiences I expect to gain in this course."

    2. Upon return, have students write a one page report on "The learnings and experiences I have gained after 10 days in the wilderness."

3. Return the first report to students, have them compare their expectations and experiences. Have them critically analyze what they expected, and what they feel they received.

17. Include a socio-gram study to help determine personal-social development.

18. Include some physiological testing, both pre-post, as well as at intervals during the course: heart rate, blood pressure, lung capacity. The activities of the class, which include hiking approximately 50 miles should provide for an increased degree of physical fitness in all students. This change should be measured.

19. It is recommended that this year's policy of "ride in and walk out" be continued. After several days of hiking at high altitudes, most students found that the walk out wasn't nearly as hard as they had anticipated. The compass and map reading aspect of the walk out was an exciting and rewarding experience.

Section IV
Evaluative Summary

In summary, the evaluators would like to emphasize the following points:

1. HPE 537, Experiences In Outdoor Education, is innovative and exemplary, and truly unique to modern education.
2. The present program is educationally sound. The recommendations suggested in Section III are basically organizational in nature, and intended to improve the present scope of the program.

Conclusions

In the opinion of the evaluators, Chadron State College should:

1. Continue to offer the course on the graduate level.
2. Expand the course so that there are separate offerings on both the undergraduate and graduate level. The courses would be similar, of course, but would reach two distinct groups: (1) students who are about to enter the teaching field -- to reinforce learnings of relevance and humanization; and (2) teachers who are in the field -- to assist them in developing more relevant and humanistic teaching strategies.

The student cost of the course (tuition, plus approximately $75.00 for the wilderness fee) should not be considered as a factor in determining its continuance or expansion. Staff expenses are greatly reduced because of volunteer resource persons. The additional wilderness fee is extremely reasonable, and is not prohibitive to students, either under-graduate or graduate.

3. Submit a report of the course for a recognitional award at the national level.

Consultative Assistance

Both evaluators offer their assistance to Chadron State College in developing and implementing program improvements for HPE 537, Experiences In Outdoor Education, and in preparing a report for a national award.

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